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Survey Management Handbook. Volume 1
Guidelines for Planning and Managing a
Statistical Survey

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Survey Management Handbook

Volume I: Guidelines for Planning and Managing a Statistical Survey

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ENVIRONMENTAL PROTECTION AGENCY

S U R V E Y M A N A G E M E N T H A N D B O O K

Volume I:

Guidelines for Planning
and Managing a Statistical Survey

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FOREWORD

WHY THIS HANDBOOK?

The purposes of this handbook are to --

- Improve the accuracy and usefulness of EPA survey data and statistics;
- Help EPA project management plan and manage a contract survey; and
- Guide staff through the maze of Federal and Agency requirements normally encountered in developing a statistical survey.

Statistical surveys are fundamental to the effective management of many of the regulatory and enforcement programs EPA uses to fulfill its mandate to protect the Nation's health and the environment. EPA uses surveys not only to measure the effectiveness of its regulatory and enforcement activities in general, but also to measure public concern about the standards and regulations it is considering, to understand better the public's behavior and attitudes regarding key environmental problems, to measure the health risks of various substances and the health status of various populations, to characterize public attitudes towards proposed or existing rules, and to measure the effects of its rules on particular marketplaces.

Most Agency surveys are national or at least regional in scope, and therefore involve the collection and processing of large quantities of technical data. Since EPA has limited statistical and technical staff for processing major information collections, Agency offices often retain qualified research firms in the private sector to collect and process survey data. These firms typically have a national network of trained interviewers and sophisticated information management capabilities.

Survey support services may be obtained under several procurement options -- competitive arrangements, grants, cooperative agreements, sole-source contracts, and Small Business set-asides. However, our focus in this handbook is on open, competitive, negotiated procurements. Competitive procurements

offer the sponsoring office the maximum opportunity to establish the survey design specifications, set standards for contractor performance, and select firms offering the best combination of technical quality and reasonable cost. In all cases, of course, the sponsoring office is fully responsible for the outcome of the project.

WHAT IS COVERED?

This first volume of the Survey Management Handbook is organized into eight chapters, which examine the most important steps in designing a survey and procuring the services of a competent contractor to develop the design and carry out the field work. It is addressed to the project officer, the EPA program official delegated responsibility for overseeing the survey.

- Chapter 1 discusses the reasons statistical surveys are vital to EPA's rulemaking and enforcement activities, the major types of surveys, the various procurement options for obtaining outside technical support and the roles of the principal survey participants.
- Chapter 2 shows you how to determine whether the proposed survey project is both necessary and feasible.
- Chapter 3 gives instructions for developing a sound, realistic survey plan.
- Chapter 4 demonstrates how to initiate a competitive procurement for outside technical support to collect and process the survey data.
- Chapter 5 describes how to draft a statement of work for a typical contract survey.
- Chapter 6 examines the project officer's role in the selection of the contractor, with special emphasis on how to evaluate the technical proposals submitted in response to the Agency's request for proposals.
- Chapter 7 discusses the project officer's oversight responsibilities after the contractor is hired.
- Chapter 8 examines the project officer's role in overseeing the documentation and dissemination of the survey findings.

Volume II, also available from our Statistical Policy Branch, examines the methods, procedures, and quality-assurance techniques typically used to collect, process, and analyze survey data. In addition, it expands on the EPA project officer's role in monitoring the technical progress of a survey contract.

Keep in mind that statistical and information management experts in your office or in the Office of Standards and Regulations (OSR) are available to help with any specific problems you may encounter during the course of your project. The Statistical Policy Branch of OSR has a team of experts ready to assist you in all aspects of survey design and management.

Milton Russell

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Assistant Administrator
Office of Policy, Planning,
and Evaluation

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SO YOU WANT TO DO A SURVEY ...

A survey is a method or set of techniques for gathering information from a number of people -- a "sample" -- in order to learn something about the entire population from which the sample is drawn. Depending on the purpose of the study, the sample may consist of individuals or some larger unit, such as households, farms, or businesses. The sample is not selected haphazardly but is carefully constructed to ensure that each individual (or unit) in the population has a known chance of being selected to represent the entire population. In this way, the results can be reliably projected to the larger population.

The information is collected by means of a standardized questionnaire. Individual respondents are never identified. The information on the questionnaires is then tallied and analyzed, and the results are presented in summary form on statistical tables, charts, or graphs.

The remainder of this chapter discusses --

- The reasons statistical surveys are vital to EPA's rule-making and enforcement activities;
- The major types of surveys;
- The procurement options available for obtaining outside technical support; and
- The roles of the principal participants in an Agency-sponsored contract survey.

A. WHY SURVEYS ARE IMPORTANT TO THE AGENCY

There are many reasons EPA needs survey data to fulfill its Mission. At any stage in the development or implementation of a rule, EPA may need up-to-date, accurate information about the people that may be, or already are affected by its regulatory efforts. Often the best way to get this information is to go directly to the "population of interest" or the "target population" and measure their opinions, attitudes, beliefs, or perceptions about the issues the Agency is studying.

Most EPA surveys are national in scope or at least involve large segments of the public. To collect data from all the people in the study population would be prohibitively expensive and time-consuming. By interviewing a carefully selected sample of the "target population" and using scientifically valid data collection and analysis techniques, the Agency can obtain reliable statistics. (Of course, EPA does statistical studies of non-human populations, but surveys of this kind are beyond the scope of this handbook.)

EPA frequently uses surveys to --

- = Measure public concern about standards and regulations the Agency is considering.

For example, before setting standards for the use or manufacture of substances suspected of having an adverse effect on human health, the Agency regularly collects first-hand information from people living in communities exposed to these substances. The statistical information on their activity patterns, work habits, and health histories is then combined with other technical data to give the Agency a more comprehensive understanding of the problem.

- = Better understand public behavior and attitudes.

For example, the Agency conducted a public opinion survey in Region VIII to determine local attitudes toward air pollution -- specifically, the willingness of area residents to comply voluntarily with the stringent provisions in existing State Implementation Plans.

And, when "fuel switching" was of critical concern following the last oil crisis, EPA surveyed motorists to find out why they were using leaded gasoline in vehicles designed to operate with unleaded fuel. Since leaded gasoline adds more harmful pollutants to the atmosphere, it was important for the Agency to gain a better understanding of this purchasing pattern as a basis for developing a method of minimizing fuel switching.

- = Characterize public attitudes toward a proposed or existing rule.

Executive Order 12291 requires EPA to prepare a Regulatory Impact Analysis (RIA) for major regulations at both the proposed and final rule stages. Cost-benefit measurements are an essential part of every RIA. To quantify the "benefits" of some proposed rules, EPA

has used statistical surveys to measure the public's "willingness to pay" to correct the environmental problems at issue.

= Measure the impact of a regulation on a particular marketplace.

For some RIAs, EPA has used survey data to measure the probable "costs" of regulating certain businesses or industries. For example, the Effluent Guidelines Division of the Office of Water has conducted statistical surveys to help set standards for industries that discharge wastewater containing specific pollutants.

= Measure the effectiveness of Agency programs.

EPA frequently does surveys to collect scientific data for measuring the effectiveness of its regulatory efforts. These surveys often measure the health risks of various pollutants or the health status of populations suspected of being "at risk."

The Agency also uses surveys to measure the usefulness of the public information services it sponsors through State governments, contractors, universities, etc.

= Measure the effectiveness of enforcement activities.

For example, to learn more about the nature and effectiveness of enforcement activities related to PCBs (polychlorinated biphenyls), one of the enforcement divisions recently surveyed a sample of compliance inspections made by the Regional Offices.

B. MAJOR TYPES OF SURVEYS

Surveys are generally classified according to the method or techniques used to collect the data. The three traditional data collection methods are (a) face-to-face interviews, where skilled interviewers pose questions directly to the respondents, usually on a one-to-one basis; (b) telephone interviews; and (c) mail questionnaires, where the respondents complete a printed questionnaire without supervision. Often a combination of methods is used, particularly for a large survey, in which case the survey is generally classified by the method initially used to gather the information.

To explore emerging problems, the Agency is increasingly using less structured interviewing techniques such as

focus groups or in-depth individual interviews with a few individuals knowledgeable about or involved in the issues the Agency is investigating.

The method an EPA survey statistician will choose to collect data for a particular survey depends on factors such as --

- = The characteristics of the population the Agency is studying;
- = The total number of interviews needed to properly analyze the data (called the "target response rate");
- = The nature, extent, and complexity of the data;
- = The respondent's obligation to reply -- sometimes EPA can require a mandatory response, other times response to the survey is voluntary;
- = How soon the data are needed; and
- = How much money is available to do the survey.

(See Chapter 2 of Volume II for an analysis of the relative merits of the most frequently used collection methods and the factors affecting the choice of methods.)

C. CONTRACTING OPTIONS

As noted earlier, our focus in this handbook is on statistical surveys conducted under a competitive contract award. A competitive procurement offers the Agency the maximum opportunity to --

- = Establish the design requirements of the survey;
- = Set standards for contractor performance; and
- = Select the organization appearing to offer the best combination of technical quality and cost effectiveness.

Moreover, according to 41 U.S.C. 253, an Agency contracting officer (with certain limited exceptions) must obtain full and open competition in soliciting offers and awarding contracts.

Other contracting options sometimes used to obtain survey support services are --

- (1) Sole-source contracts awarded on the basis of a unique capacity to perform;
- (2) Various set-aside programs, which allow for limited competition solely among small businesses and/or firms in labor surplus area; and
- (3) Procurements set aside for minority-owned firms under Section 8(a) of the Small Business Act. (These procurements may be awarded directly to such firms without competition.)

Set-aside programs are part of the Federal Government's efforts to promote the economic viability of small businesses, particularly minority-owned businesses.

The sponsoring office also may procure technical services through grants, cooperative agreements, and interagency arrangements.

The major drawback of all other procurement options is that, while they may serve other Agency goals, they restrict competition in one way or another. Some also exclude large survey research organizations and nonprofit organizations, including academically-based research groups which often are especially qualified for major Agency surveys.

D. THE PRINCIPAL PARTICIPANTS

This section describes the roles of four major participants in a typical EPA-sponsored contract survey, namely --

- The project officer;
- The contracting officer;
- Agency technical advisors such as statistical experts and information management specialists; and
- The contractor.

1. Role of the Project Officer

The "prime mover" of any Agency survey is the person selected by the Division Director (or Office Director) of the sponsoring office to plan and manage the project. For a contract survey, this person is called the "project officer" or sometimes "project technical officer." (If the survey is executed solely by EPA

staff and no contract is involved, the person directing the survey is called the "project manager.")

The project officer usually is given the lead responsibility for technical oversight of the survey early in the planning stage and holds this position until the contract is closed out. He/she is responsible to select staff to develop the technical requirements of the survey contract and make sure the contractor fulfills these requirements.

The project officer also carries out various advisory and administrative tasks in support of the Procurement and Contracts Management Division (PCMD), which has overall authority for the contract awards process.

Exhibit 1 lists the project officer's principal responsibilities during each phase of a typical contract survey and the chapters detailing these responsibilities.

We also have provided a "Help Directory," Exhibit 2, listing sources to contact for further assistance in designing the survey, preparing the survey schedule and budget, initiating the procurement, or obtaining clearance to collect the needed data from the Office of Management and Budget (OMB), as required by the Paperwork Reduction Act of 1980.

2. Role of the Contracting Officer

The acquisition of outside technical services to support the development and implementation of a contract survey is a complex process governed by laws, regulations, policies, and procedures defined in Federal and EPA procurement regulations and, the EPA Contracts Management Manual. A specialized knowledge of these requirements is especially important in a competitive procurement.

The "contracting officer" is the person delegated by PCMD to work with the project staff in obtaining the best possible technical support given the funds available for the contract. The contracting officer oversees all aspects of the procurement process to ensure that it is carried out in accordance with all pertinent rules and regulations.

It is easy to see why it is essential for the project officer and the contracting officer to maintain close cooperation during all phases of the survey. While the project officer has full responsibility for the technical aspects of the procurement both before and

THE PROJECT OFFICER'S RESPONSIBILITIES
DURING A TYPICAL CONTRACT SURVEY

CHAPTER	SURVEY PHASE	PRINCIPAL TASKS
2	PREPLANNING	• Preparing a needs assessment to determine whether the survey is both necessary and feasible.
3	PLANNING AND DESIGNING THE SURVEY	• Establishing the survey design requirements. • Developing a preliminary schedule. • Developing a preliminary budget.
4	INITIATING THE PROCUREMENT	• Initiating the request to procure outside technical support. • Developing the procurement request package.
5	WRITING THE STATEMENT OF WORK	• Defining the scope of work of the procurement.
6	SELECTING THE CONTRACTOR	• Safeguarding information from offerors. • Evaluating and scoring the technical proposals. • Supporting the contract negotiations.
7	MANAGING THE CONTRACT	• Fulfilling the Agency's contractual commitments. • Obtaining OMB clearances. • Monitoring and controlling the contractor's technical performance. • Assisting in the administrative oversight of the contract.
8	REPORTING AND RELEASING THE FINDINGS	• Reviewing and clearing drafts of the final reports. • Releasing the survey findings.

"HELP" DIRECTORY

FOR HELP IN DESIGNING THE SURVEY --

- Statistical Policy Branch (SPB), Chemicals and Statistical Policy Division, Office of Standards and Regulations.
- Your office's statistical survey experts.
- Volume II of this handbook.
- What Is a Survey? -- a small, easy-to-read booklet published by the American Statistical Association, Washington, D.C., available from SPB.
- Payne, S.; The Art of Asking Questions; Princeton University Press, Princeton, N.J., 1951.
- Schuman, H., and Presser, S.; Questions and Answers in Attitude Surveys; Academic Press, 1982.
- Slonim, M.; Sampling in a Nutshell; Simon and Shuster, 1960.

FOR HELP IN SCHEDULING AND BUDGETING THE SURVEY --

- Other project officers.
- Your contracting officer.
- Your office's statistical staff or SPB.
- Informal contacts with current or past EPA survey sponsors.

FOR HELP WITH EPA PROCUREMENT POLICIES AND PROCEDURES --

- Your contracting officer.
- The EPA Contracts Management Manual, available in all Division-level offices.
- The EPA Project Officers' Handbook.

FOR HELP IN OBTAINING OMB CLEARANCES --

- The Information Management Branch (IMB), Regulation and Information Management Division, Office of Standards and Regulations.
- Your office's Information Management Coordinator.

after the contract award, the contracting officer is fully responsible for overseeing the business and administrative aspects.

3. Role of Other Agency Specialists

At various stages of the survey's development, the project staff may draw upon the expertise of Agency statistical and information management experts as well as outside sources having specialized knowledge about the subject area of the research.

Most Agency program offices have statistical experts who can be tapped during the course of the project to help design the survey, evaluate the proposals submitted by the prospective contractors, etc. In addition, the Statistical Policy Branch (SPB) of the Office of Standards and Regulations (OSR) has statistical experts available on an "as needed" basis. SPB can help the project staff develop the survey plan or review documents prepared by the contractor (e.g., the proposal, the questionnaire, the sampling plan, etc).

Each program office also has an Information Management Coordinator, who can help you prepare and expedite the clearance required by the 1980 Paperwork Reduction Act for all information collections. The Information Management Branch (IMB) of OSR manages the Agency's clearance process under the Act. IMB can help you obtain the necessary approvals for the survey from the U.S. Office of Management and Budget and other reviewing authorities.

4. Role of the Contractor

The contractor, who serves as an agent of EPA during the term of the award, typically is an experienced survey research organization in the private sector. The contractor generally must be capable of providing a wide range of technical and support services to help the Agency design and execute all aspects of the survey. Survey contractors frequently have a permanent staff of sampling experts, data processors, data analysts, and a network of trained interviewers.

EPA contracts out much of its survey work to relatively large survey research firms because monitoring and controlling the data collection and data processing activities in most Agency surveys requires dozens of trained interviewers, field coordinators, computer specialists, and statistical analysts. Few small research

research firms have the resources needed to quickly and efficiently gather and process information from the many hundreds of widely dispersed respondents usually involved in Agency surveys.

In this chapter we examined the reasons statistical surveys are important to the Agency's regulatory and enforcement programs. We also described the major types of surveys, the contracting options available to the sponsoring office for obtaining survey support services, and the roles of the principal participants in an Agency-sponsored survey.

The next chapter will show you how to determine at the outset of the project whether a survey is necessary and feasible.

HOW TO DECIDE WHETHER TO DO THE SURVEY

Before the sponsoring office begins to draft a formal plan for the survey, a preliminary assessment of the necessity and feasibility of the proposed research should be made. This task is often delegated to the person who will lead the project.

This chapter gives instructions for preparing an informal report (a "needs assessment") to demonstrate whether the proposed survey --

- Is necessary -- there is a clear need for certain information that is not available elsewhere in exactly the form the Agency needs it; and
- Is feasible -- a survey appears to be the most cost-effective, least burdensome way to help fulfill a particular legislative mandate or program goal.

Much of the information in the assessment report will be helpful later for preparing the survey plan (see Chapter 3), the paperwork for initiating the procurement (Chapter 4), and the request for OMB clearance of the survey (Chapter 7). The amount of detail that should be included is optional. However, since the purpose of the report is to give officials of the sponsoring office basic information to make a decision on the need for a survey, generally, it should not be more than two pages long.

A. IS THE SURVEY NECESSARY?

To demonstrate the necessity of the proposed survey, the report should affirm the truth of the following two statements:

(1) EPA has a clear need for certain new information.

The information you propose to collect from the public cannot simply be "nice to have." There has to be a real need for it -- to carry out a particular statutory, regulatory, or judicial mandate or program goal, for example. Preferably, you should be able to cite chapter and verse from the specific statute or court order

giving the Agency a direct mandate to collect certain information. Otherwise, your assessment should indicate the legal or judiciary authority requiring the Agency to take certain actions and the reasons EPA cannot do so unless the new data are obtained.

(2) The information is not available elsewhere.

Once you have shown why the Agency needs the information, you will have to do a data search to demonstrate that the information (a) is not available from some existing source (published or unpublished) either within or outside the Federal Government, or (b) could not be obtained some other way such as by "piggybacking" on a survey being conducted by another agency.

Your data search may have other benefits. The experiences of the people who have done similar surveys may help you avoid costly methodological errors. You may find that the questionnaire used in a previous survey needs only slight modifications to meet your needs. You may discover that another agency is currently collecting similar data that will enable you to get the information you need more quickly and reduce the scope of your information collection effort.

On the the other hand, your data search may reinforce the necessity of doing a new survey. Even if some of the information you need is available from other sources, you may find that --

- The source won't release it (for confidentiality reasons, perhaps);
- It is outdated, not in the form you need it, or is incomplete;
- The methods used to obtain the data are questionable and, therefore, the statistics may not be reliable enough for your purposes; or
- It is not representative of the population you are most interested in or covers only a limited geographic area.

B. IS THE SURVEY FEASIBLE?

Your needs assessment also should clearly demonstrate the feasibility or workability of the survey. While you may be able to justify the necessity of obtaining new data, there

are still some practical issues to consider. The assessment, therefore, must also show that all three of the following statements are true --

- (1) Sponsoring a survey appears to be the best way to obtain the needed information.

Although the Agency may indeed need certain information, it simply may not be available. For example, most obvious data sources may not keep records that will provide the information you need.

Or, after consulting with a survey expert, you may find that collecting the particular data you need would impose too heavy a burden on the prospective respondents. Since the Paperwork Reduction Act prohibits Federal agencies from imposing undue burden on the public in gathering information, you may have to use other research techniques to obtain the desired data.

- (2) There is time to wait for the results.

If the objectives of your survey are very limited, you may be able to do a "quick and dirty" data collection effort in just a few weeks using Agency personnel.

But if you expect to hire a contractor to collect data from several hundred people, you are not likely to get the results for at least eight months -- and eighteen months is not unusual. First, a major contract survey takes months to design and plan. Second, the Federal procurement process for a competitive contract award may take five months or more. Finally, obtaining the required internal reviews and a clearance from the U.S. Office of Management and Budget (OMB) usually takes at least 60 days after the contractor is aboard; the contractor cannot begin to collect data until OMB approves the survey if ten or more people are to be interviewed.

- (3) You have sufficient funds to get the information you need.

Surveys can be expensive as well as time-consuming. To make a reliable survey of, say, 400 firms could easily cost \$100,000. Even a relatively small data collection project involving 25-50 businesses or industries might cost \$30,000-\$50,000. A national survey of 5,000 people using personal interviews could cost as much as \$3 million.

The method and techniques you use to collect the data also will affect the cost of the survey. Generally speaking, if personal interviews are used, the survey will cost at least twice as much as telephone interviews and take twice as long. Both methods are more costly than a mail survey. By clustering the respondents at a few central locations, the costs of doing personal interviews can be substantially reduced. For example, personally interviewing the employees of a particular firm during working hours would cost far less than surveying them at home by mail or by phone. Use of a mass-administered questionnaire is another cost-saving option that may be appropriate for some surveys.

(See Chapter 2 of Volume II for information on the advantages of different data collection methods.)

If your assessment shows that all five of the above statements are true, submit a brief report to your Office Director for approval. If you expect the project to cost more than \$2 million, it is best to get the approval of your Assistant, Deputy, or Regional Administrator before proceeding with the project.

In this chapter we showed you how to prepare a needs assessment, an informal preplanning document designed to help officials of the sponsoring office decide whether to commit staff and funds to the development of a full-scale survey plan.

Once the needs assessment is approved, the project staff can begin to develop a formal planning document. This is the subject of the next chapter.

PLANNING THE SURVEY

This chapter gives instructions for preparing a formal survey plan. Specifically, it will show you how to --

- Define the research objectives and the principal design specifications of the survey;
- Prepare a schedule for the in-house and contract resources needed to carry out the project; and
- Prepare a project budget.

A carefully thought-out plan is important to the successful outcome of any survey. It is essential for a contract survey.

Once the sponsoring office has determined that a new survey is both necessary and feasible, a responsible official -- usually the person who later serves as the project officer -- should be appointed to develop a plan for the survey.

A formal planning document will help the sponsoring office coordinate the survey more effectively with --

- = Contracts personnel (to initiate the procurement of outside technical support);
- = Information management specialists (to obtain the internal and external clearances required to collect data from the public); and
- = Survey experts (to develop a sound, workable methodology).

A. ESTABLISHING THE SURVEY DESIGN REQUIREMENTS

The first step in developing a formal survey plan is to establish a set of design specifications to guide the research.

At a minimum, the plan should specify --

- (1) The research objectives (stated in terms of the kinds of information to be collected and the problems to be solved) and the relationship of these objectives to the Agency's Mission;
- (2) The population to be investigated and the extent of coverage;
- (3) That probability sampling must be used to select the respondents from the target population;
- (4) The level of precision (sampling error) the Agency will allow for one or more of the key statistics; and
- (5) A minimally acceptable rate of response for the survey as a whole.

Of course, you may specify the Agency's requirements for any number of other design elements such as the data collection and data processing procedures. However, these additional specifications will not substitute for clear definitions of the above five design elements.

Below we (1) expand on these five minimum design specifications and (2) briefly discuss nine other design elements often covered in survey plans.

1. Minimum Design Specifications

- Research objectives.

The first fundamental design specification of any survey plan is a clear statement of the objectives of the research. The statement should define (a) the information to be collected, (b) the problems to be solved, (c) the hypotheses to be tested and, if possible, (d) the key study variables.

For example, let us say that, in conjunction with the development of revised safe drinking water standards, you have decided to investigate the effects of a chemical substance suspected of contaminating the drinking water of communities where certain industries are operating. You might state the overall objective of the survey as follows --

"To examine the health status of the adult population residing near industries generating Substance X."

You could be more specific and state your objectives this way --

"To investigate the exposure levels of the population residing near industries generating Substance X as a product or byproduct of certain manufacturing processes;

"To investigate possible changes in the health status of the subject population; and

"To investigate the attitudes and opinions of the local medical community concerning any changes in the health status of the subject population."

You could be still more specific and include (a) the particular industries and communities you plan to investigate, (b) the precise industrial processes suspected of contaminating the drinking water, and (c) the reasons Substance X is believed to be causing the problem.

If at all possible, you should also include one or more key variables in your statement. Continuing with the above example, your objectives statement could indicate your intent to measure the health status of the subject population by questioning local residents about (a) "the number of visits they made to a physician in the past 24 months," (b) "the number of prescription drugs taken daily," or (c) "any significant change in the taste of the local drinking water" or "...in the clarity of the water."

It is also important to relate the survey objectives to specific regulatory or statutory mandates. Cite any relevant mandates and briefly explain how the survey is expected to support them. To illustrate, the statement of the research objectives for the above example would include pertinent citations from the Safe Drinking Water Act and any Agency regulations developed to carry out the Act.

(An exemplary statement of the research objectives and relevant legislative authority for a recent Agency survey on carbon monoxide exposure is shown in Appendix A.)

- Target population and coverage.

The second fundamental design specification of any survey plan is the "target population" (population of interest) and the "coverage" of the survey.

The target population is simply all the people, businesses, or other population units chosen for investigation. The target population does not have to be individuals. It can be households, businesses, institutions, or any other population unit.

Depending on your research objectives, the target population could be "all the people in the entire Nation," "all adults 18 years and older," or it could be much more specific -- "drivers who commute long distances by automobile" or "people over 65 living in cities with high pollution levels." An appropriate target population for our hypothetical survey might be "the adult population of communities where industries suspected of generating Substance X are located."

The coverage of the survey may be a particular geographic area (e.g., "the Northeast Corridor," "the entire Nation") or a subgroup of the target population (e.g., "high risk individuals 65 or older," or "chief engineers of hazardous waste disposal plants").

While defining the target population and the coverage appears to be a simple matter, it often is very difficult. For example, you may know what you want to study (Substance X, say), but you may not know where to find an appropriate group of people to study or which subpopulation in that group is at greatest risk.

(See Appendix A for a description of the target population used in the above mentioned EPA survey.)

- Use of probability sampling.

The third fundamental survey design specification is a requirement that probability sampling must be used throughout the selection process to identify the survey respondents. The "respondents" are the specific individuals in the target population which the researchers contact in person, by phone or by mail to get the information the Agency needs.

Sampling is a method of selecting a representative segment of the target population to obtain precise estimates of the opinions, attitudes, beliefs of behavior of the larger population from which the sample is drawn (the target population). Most acceptable sampling methods, including probability

sampling, are well grounded in statistical and probability theory.

Using "probability sampling" means that every unit (person, household, etc.) selected to represent the target population has a known, nonzero chance of being included in the sample. This method of selecting the survey respondents makes it possible for the researchers to draw statistically valid inferences about the entire population the sample is designed to represent.

Today, virtually all surveys that can be considered reliable or representative use some method of probability sampling. Conducting a "census" of the entire population of interest is both impractical and inefficient. Even when the target population is relatively small, it is usually more cost-effective to obtain information from a sample rather than interview everyone in the population.

It is not necessary at the planning stage to actually select the sample, determine what size it should be, or specify anything else about it. That can be done later by Agency sampling experts or, preferably, by the contractor. The only important thing at this point is to incorporate a requirement in the plan that probability sampling must be used throughout the selection process.

(See Chapter 4 of Volume II for more information on sampling.)

- Required level of precision.

The fourth fundamental design specification deals with the level of precision the Agency will require for one or more of the key statistics. (The "statistics" are the results obtained from tabulating data collected from a sample.)

The level of precision you specify will depend on a great many factors -- the purposes of the survey, the intended use of the data, the time you have available to collect the data, and particularly how much you have to spend. Whatever level you specify should be stated in terms of sampling error, which is the difference between the statistics and the values you would have obtained had all the members of the target population been surveyed.

Again using our drinking water example, suppose that 70 percent of the sample detected significant changes in their water quality. Undoubtedly a survey of the entire target population would have produced a somewhat different percentage. The advantage of using probability sampling is that the rules of statistics allow you to estimate the difference between the percentage reported by the sample and that which would have resulted from a complete enumeration of the target population. The margin of error that results when sampling is used is measurable.

The margin of error of the above statistic (70 percent) should be stated in terms of a number of percentage points above or below the stated value of the percentage -- ± 3 percent, say. This would indicate that between 67 and 73 percent of the "true" population would have detected a significant change in their drinking water (had they all been surveyed).

On the other hand, to show the margin of error of a mean (instead of a percentage), you report the number of units above or below the calculated average value. For example, if the average age of the sample who responded to this particular drinking water question was 34 years, you would report the sampling error as $\pm$ a certain of years.

We turn now to nonsampling errors -- errors that are not attributable to sampling methodology. Unlike sampling errors, nonsampling errors are not easily measured.

Some nonsampling errors occur at random and tend to have virtually no effect on the validity of the statistics. Examples are response errors occurring as a result of an occasional deliberate or unintentional reply, such as deliberately overstating or understating personal income.

There is another kind of nonsampling error, however, that tends to create errors in the same direction over the entire sample. These systematic, one-sided errors are called "biases." Biases are undesirable because they can distort the results in ways that are difficult to measure.

Biases can arise at any point in a survey due to methodological or management problems, such as failure to interview all the people who were supposed to be interviewed, faulty sampling frames (sources

from which the sample is drawn), poor wording of the questionnaires, or inexperienced interviewers.

- Target response rate.

The fifth and last fundamental design specification concerns the desired overall response rate from the sample -- the "target response rate."

Establishing a target response rate, like establishing a certain level of precision, is a way of building quality into the survey. Unless a large proportion of the sample provides the information EPA is seeking, the survey results will have little validity. The reason is that, no matter how carefully the sample is drawn, there is no valid way of inferring the opinions, attitudes, or beliefs of the members who do not respond. A high rate of response also helps to prevent bias.

When you specify the target response rate, be sure to define what you mean by "response rate." Usually it is defined as the ratio of --

$$\frac{\text{Number of completed interviews (or questionnaires)}}{\text{Total number of eligible units in the sample}}$$

As for determining the rate itself, that is something a survey expert will have to help you with. There is no ideal rate that can be applied to all surveys or even to different types of surveys.

Generally speaking, a 75 percent response rate is acceptable for an in-person or telephone survey. Mail surveys of the general public usually yield much lower response rates -- less than 40 percent is not uncommon -- even after several repeat mailings. However, telephone calls or personal visits to a subsample of those who have not returned their questionnaires can raise the initial response rate to a mail survey considerably. In most cases, unless an extensive follow-up of the nonrespondents is planned, a mail survey where responses are voluntary is an unacceptable method of collecting data for Agency-sponsored surveys.

An adequate follow-up of nonrespondents is essential for achieving a satisfactory response rate in almost all surveys, whatever method is used to collect the data. Follow-up techniques include returning to households where no one was home and making

a second (or third) attempt to persuade people to answer questions after they refused when first contacted. (See Chapter 5 of Volume II for more information on nonresponse.)

To recap: The above five design specifications are essential to ensure the quality of the data and the statistical findings. Of course, your survey plan need not be limited to these key specifications. Depending on the statistical expertise available to the project staff, any number of design specifications can be defined by the Agency. However, none will contribute as much to the successful outcome of the survey as the above five specifications.

2. Optional Specifications

The nine optional design elements discussed below are often covered in survey plans: (1) pretests, (2) data collection methods, (3) sampling frames, (4) the sampling plan, (5) questionnaires, (6) data collection procedures, (7) data processing procedures, (8) the analysis plan, and (9) reports and other deliverables. For most of these elements, we recommend that you wait and let the contractor develop specifications for them.

(1) Pretests.

Pretests are mandatory for all surveys. For most surveys, a pilot test -- an even more elaborate pretesting procedure -- is highly advisable. In a pilot test both the field procedures and the questionnaire are tested in advance, usually on a larger sample than in a pretest.

Either you or the contractor can pretest the workability of the questionnaire or the methodology on a small sample. If you intend to conduct the pretest, explain how you plan to go about it.

(See Chapter 3 of Volume II for more information on pretests.)

(2) Data collection methods.

It is not necessary to specify a particular data collection method in the plan -- mail, or face-to-face or telephone interviews, or some combination of methods -- unless you have a special reason

for doing so (e.g., a successful experience with a particular method under similar conditions). Except in unusual circumstances, in fact, we recommend that you leave the choice up to the contractor. Specifying the data collection method tends to impose unnecessary restrictions on whoever does the final survey design.

(See Chapter 2 of Volume II for more information on choosing data collection methods.)

(3) Sampling frames.

A "sampling frame" is the source (or sources) from which the sample is drawn. Often it consists of one or more lists of individuals or organizations, but it also may be a set of city blocks, a set of telephone exchanges, etc.

Sometimes the Agency will supply the sampling frame (e.g., a list of hazardous waste disposal firms). For other surveys, you may leave the construction of the frame entirely up to the contractor. If you are going to furnish the frame, however, indicate this in your survey plan. Also note when it will be available.

(4) Sampling plan.

A sampling plan describes and justifies the choice of the (a) sampling units, (b) sample size(s), and (c) methods of selecting the sample from the frame. The sampling plan is a vital component of the final survey design, but it is not necessary for the Agency to develop it. Usually that is best left to the contractor. (You do have to define the target population, however; without it, the contractor cannot develop the sampling plan.)

It is especially important not to specify the size of the sample either now or in the Request for Proposals (RFP). Specifying both the required level of precision (sampling error) and the sample size you desire imposes too many constraints on the contractor.

In all matters concerning sampling we strongly advise that you consult a sampling expert. Sampling is a complex "science." A survey sample may range from a simple random sample to a highly complex set of samples involving multiple stages

(or levels of selection) with stratification and/or clustering of the sampling units into various groupings. The firm the Agency ultimately hires to do the survey design will undoubtedly have a sampling expert develop the sampling plan. (A sampling expert is a specialist in a certain branch of statistics. Not all statisticians have expertise in this area.) We also recommend that an Agency sampling expert review the contractor's sampling plan before the data collection begins.

(See Chapter 4 of Volume II for information on all aspects of sampling.)

(5) Questionnaire(s).

A well-thought-out questionnaire is one of the most important elements of a successful survey. A poorly designed questionnaire is likely to produce serious biases and can significantly affect the quality of the results.

Both the content and form of the questionnaire are critical to the outcome of any survey. Questions should be clearly and unambiguously phrased, easy to read, and arranged in logical order with related items grouped together. The form should be easy to complete and as brief as possible. It should contain clear instructions on whether certain questions may be skipped (particularly if the questionnaire is to be self-administered), where and how to return the questionnaire, etc.

(See Appendix B for an example of a questionnaire used in a recent Agency survey.)

While we do not recommend that you complete the questionnaire at this point in the survey's development -- that may be left entirely to the contractor, you should draw up a draft questionnaire or at least a suggested list of questions for the survey plan. This also will help you define the research objectives and estimate the survey costs.

(See Chapter 3 of Volume II for complete guidelines on preparing a survey questionnaire.)

(6) Data collection procedures.

Generally you will not need to include specifications for the data collection (or interviewing)

procedures in your survey plan. However, when you prepare the statement of work for the procurement request, you may want to specify certain aspects of the collection methodology (data rights, confidentiality provisions, limits on the length of the interviews, etc.). These procedural aspects are discussed in Chapter 5. (Also see Chapter 5 of Volume II for a detailed discussion of interviewing.)

(7) Data processing procedures.

It is also unnecessary to specify the data processing procedures in the survey plan. Chapter 5 gives instructions for stipulating certain processing procedures in your procurement request such as the format of the data tabulations.

(See Chapter 6 of Volume II for more information on data processing.)

(8) Analysis plan.

Although we do not recommend that you specify either the data collection or data processing procedures, it is extremely important to draw up a broad outline of what you expect to get from the survey. In much the same way as you translated the research objectives into a preliminary questionnaire, you should draw up a preliminary analysis plan showing the purposes and objectives of the survey -- how responses to key questions, when tallied, will achieve those objectives.

Your analysis plan also should include of a set of dummy tables ("tables shells") for reporting the results of the data tabulations. The dummy tables, in turn, will help you frame your research objectives and draft the questionnaire.

(See Chapter 1 of Volume II for details on preparing an analysis plan.)

(9) Reports and other deliverables.

It is not necessary to list all the survey deliverables in your plan. However, we recommend that you specify and schedule any written reports (e.g., draft, final interim, special, etc.) as well as progress reports that will have to be prepared. You will need this information to

develop a preliminary schedule for the project, discussed in B below.

(For more information on deliverables, see Chapter 4, particularly Exhibit 4. Also, Chapter 8 presents suggestions for the form and content of the final survey report.)

B. SCHEDULING CONSIDERATIONS

This section explains (1) how to prepare a project schedule, (2) the two principal time constraints on a contract survey, and (3) how to phase the survey.

1. Preparing the Schedule

The second component of the survey plan is a schedule for the project. You should at least schedule (a) the project milestones, and (b) the major activities the contractor and the project staff will have to complete to achieve each milestone, including the delivery dates for all deliverables.

To prepare the schedule, first identify the project milestones and plot them on graph paper. Typical milestones for a contract survey are --

- (1) Submission of the paperwork to hire outside technical support (the "procurement request package");
- (2) Award of the contract;
- (3) Completion of the sampling plan, questionnaire, and analysis plan;
- (4) Approval of the clearance package by the U.S. Office of Management and Budget (OMB);
- (5) Completion of the pretest;
- (6) Completion of the data collection operations;
- (7) Completion of the data processing and analysis;
- (8) Completion of the draft of the final report;
- (9) Completion of the final report; and
- (10) Release of the survey findings.

Next, list the major activities (and the individual tasks, if possible) the contractor and the project staff will be responsible for, and indicate the number of work hours required for each activity. Then plot the duration of each activity on your graph.

Your list of contractor activities might include --

- (1) Completing the sample design;
- (2) Completing the questionnaire and analysis plan;
- (3) Pretesting the questionnaire and the data collection methodology;
- (4) Evaluating the pretest results and revising the questionnaire and the methodology accordingly;
- (5) Hiring and training the interviewers;
- (6) Implementing the data collection procedures (conducting interviews or mailing out the questionnaires);
- (7) Performing follow-ups, quality control, and data verifications;
- (8) Editing and coding the data;
- (9) Tabulating and analyzing the data; and
- (10) Drafting the final report.

Of course, there are some important activities the contractor cannot perform. Your schedule also should include the activities (and tasks) the project staff is responsible for, along with estimates of the number of work hours needed to complete them.

Project staff activities generally include --

- (1) Preparing the statement of work and other parts of the procurement request package;
- (2) Supporting the Procurement and Contracts Management Division (PCMD) in selecting a qualified contractor (evaluating the technical proposals submitted in response to the RFP, participating in contract negotiations, and performing other administrative tasks involved in getting the contractor aboard);

- (3) Obtaining OMB clearance for the pretest and the survey proper;
- (4) Monitoring and controlling the contractor's progress;
- (5) Reviewing all drafts of contract reports;
- (6) Issuing the survey findings; and
- (7) Assisting in closing out the contract.

Although it may be difficult to estimate the probable duration of some project staff activities because much depends on people outside the project (OMB, the contracting officer, other internal review authorities), your schedule should include rough estimates for all major activities. If you need help, contact the Statistical Policy Branch (SPB) of OSR or a statistician in your office.

2. Major Administrative Time Constraints

The principal administrative time constraints on any contract survey are (a) getting the contractor aboard and (b) obtaining OMB clearances of the pretest and the actual survey.

• Procurement of the contractor.

The project schedule should include the time necessary to get the contractor aboard. Your contracting officer can help you estimate this but, generally speaking, much depends on the dollar amount of the proposed procurement and whether you plan to request a competitive or a sole-source acquisition.

First, you must allow adequate leadtime for approval of the procurement paperwork by your own office. If any special resources will be required (ADP equipment or services, tape recorders, mailing lists, etc.), other Agency offices have to approve the procurement package before it goes to PCMD. (See Chapter 4 for more information on procurement requirements.)

Finally, the Procurement and Contracts Management Division must process the procurement. The standard leadtime for PCMD approval of small purchases (up to \$25,000) ranges from 7-80 calendar days, depending on the size of the award and whether it is to be a

sole-source or competitive order. New sole-source or competitive awards over that amount regularly require 120-240 days for PCMD approval. (See Appendix D for more specific estimates of the leadtimes required for various types of contracts.)

- Obtaining OMB clearances.

To meet requirements of the 1980 Paperwork Reduction Act, EPA is required to obtain OMB approval of any information activity involving ten or more respondents. Therefore (except in dire emergencies), neither Agency staff nor the contractor are permitted to begin collecting data for the survey -- or even the pretest if more than nine members of the public are to be questioned -- until OMB approves the survey methodology and the proposed questionnaire.

Obtaining OMB clearance of any data collection activity is a lengthy procedure. At EPA the clearance procedure is managed by the Information Management Branch (IMB) of OSR.

As a rule of thumb, allow at least two weeks for each office that must handle and review the clearance package before it reaches OMB. The Act allows 60 days for OMB's review (90 days OMB grants itself an extension).

The project officer is generally delegated the responsibility (a) for preparing the necessary paperwork to obtain the OMB clearance, (b) for submitting the paperwork through proper channels, and (c) for answering any questions the reviewers may raise during the clearance process.

If you have developed a comprehensive survey design and a preliminary questionnaire, you can initiate the OMB clearance request before the contractor is hired. However, in actual practice, clearance requests for surveys (or even pretests) are rarely initiated until after the contractor is aboard. This is because the contractor usually plays a major role in designing the questionnaire and the data collection procedures.

To prevent any unnecessary delays in clearing the survey, contact OSR's Information Management Branch early in the planning stage -- preferably as soon

as you have tentatively defined the objectives of your survey objectives. IBM can advise you on the Agency's clearance requirements and give you a more precise estimate on how long internal and external approvals of your particular survey will take.

Later chapters of this handbook provide additional information that may help you estimate the time needed to obtain OMB clearances (Chapter 7), hire a contractor (Chapters 4 and 6), monitor and control contractor performance (Chapter 7), and review and disseminate the findings (Chapter 8).

3. Phasing the Survey

If you have any serious doubts about the Agency's ability to achieve the research objectives, it may be wise to do the survey in phases. Two appropriate ways are --

- To issue an RFP solely for the pretest (or pilot test), with the stated intention of issuing another RFP for the survey if the trial phase indicates the proposed methodology is workable; or
- To specify a series of optional work segments in the RFP, to be authorized by the Agency when and if certain concerns are resolved.

The first alternative is obviously more time-consuming because two RFPs are involved and two OMB clearances will be necessary if you plan to use more than nine respondents in the pretest.

If you decide to use a phased approach, discuss your intentions with your contracting officer as soon as possible. PCMD can advise you of other phasing options that may be available in your particular case.

C. BUDGETING CONSIDERATIONS

The third component of the survey plan is the project budget. A preliminary cost analysis of the in-house and contract resources the Agency will need to carry out the survey is important because the amount of money available for the project can profoundly affect the design.

If you have prepared your schedule along the lines suggested in the previous section, developing a budget is relatively easy. Briefly put, you will have to compute cost estimates for each item on the schedule, separately

estimating in-house and contractor resources. Be sure to include costs for computer time, travel, postage, reproduction, and printing in addition to estimates for project staff and contractor personnel.

If you need help in making your estimates, contact SPB, a statistical expert in your office, your contracting officer, or other project officers.

When you complete the first draft of the budget, you may find it necessary to modify the original survey design if the funds available for the project are insufficient to meet your design criteria. If so, consider reducing the coverage, the number of questions, or the target response rate. If you cannot modify the design and arrive at a tolerable margin of error given the available funds, you may have to abandon the idea of a survey altogether.

To recap: At this point in the survey you should have --

- (1) Established a clear need for the survey -- in other words, determined that certain data are not available elsewhere and that a survey is the most appropriate way to obtain the information you need;
- (2) Prepared a survey plan that includes criteria for at least the five critical technical design elements discussed in the previous chapter;
- (3) Given full consideration to the availability and cost of using in-house resources to do the survey, and determined that certain technical services should be procured from outside the Agency;
- (4) Estimated the internal and contract resources that will be required to carry out the planned activities, and determined that adequate funds and time are available; and
- (5) Obtained approval from appropriate officials in your office to initiate the procurement.

This chapter gave instructions for preparing a plan to help ensure the successful outcome of the survey. We recommended that the Agency's requirements for certain key design elements be clearly specified and that both a preliminary schedule and budget be included.

Once the plan is approved, the sponsoring office can begin to develop the paperwork for procuring whatever outside technical support is required. That is the subject of the next chapter.

PROCURING OUTSIDE TECHNICAL ASSISTANCE

Procuring outside technical support for a statistical survey is a lengthy, complex process. This chapter discusses the first phase of the procurement process -- the solicitation phase. It begins when the sponsoring office submits a formal procurement request package to the Agency's Procurement and Contracts Management Division (PCMD) to initiate a contract award. In the case of a competitive procurement, the desired end-product of this phase is a sound, realistic Request for Proposals (RFP) describing the Agency's technical requirements and conveying all the information prospective offerors need to prepare a responsive proposal. Requirements for noncompetitive procurements are similar but less complex.

The next two phases of the procurement process, the evaluation of the offerors' proposals and the management of the contract, are discussed in Chapters 6 and 7, respectively.

This chapter examines --

- The responsibilities of the project officer and the contracting officer in preparing a procurement request or order; and
- The paperwork required to support and justify the procurement of technical support services for a statistical survey, with special emphasis on competitive procurements.

A. INITIATING THE PROCUREMENT -- A TEAM EFFORT

The project officer's technical expertise and the contracting officer's knowledge of Federal procurement requirements are both essential for developing a sound contract award.

The project officer is usually delegated responsibility for (a) drafting the scope of work statement for the survey, (b) preparing a formal procurement request package specifying and justifying the sponsoring officer's technical needs, and (c) obtaining the required internal approvals for the procurement before submitting the package to PCMD.

The procurement package consists of a Procurement Request/Order (EPA Form 1900-8), a Procurement Request Rationale Checklist (EPA Form 1900), and other supporting materials. It specifies the scope of the proposed contract work as well as the deliverables and reports the contractor is expected to produce. For a competitive procurement, the package also must include the evaluation factors that will be used to weigh the offerors' technical proposals, and other information that will permit the contracting officer to write a clear, realistic RFP.

The contracting officer is responsible for (a) processing the procurement request package and (b) determining what procurement arrangement will be used to purchase the required services. In addition, for a competitive procurement, the contracting officer must (c) prepare a Request for Proposals and (d) make qualified firms aware of the offering. The contracting officer will draft the RFP based on the information supplied by the initiating in the procurement request package.

Ideally, an RFP for a survey --

- = Requests the development of or specifies a technically sound survey design that will meet the Agency's information needs, and is realistic, considering the time and funds available for the project and the capabilities and resources of potential contractors;
- = Conveys all the information offerors will need to prepare a responsive proposal, including all the terms, conditions, and provisions the Agency intends to incorporate in the contract;
- = Asks for all the information that procurement and technical personnel will need to conduct an accurate and equitable evaluation of the proposals received; and
- = Attracts responsive proposals from enough qualified offerors to provide full and open competition and permit a suitable selection.

An RFP specifically includes (a) instructions to offerors on how to prepare a proposal and submit it to EPA; (b) instructions for their technical proposal (the kinds of information offerors are expected to discuss in their technical proposals); (c) business management instructions (the date and location of the offerors' conference, if any, the closing date for the proposals, and how to submit cost and pricing data); (d) all terms, conditions, and provisions the Agency intends to incorporate in the contract;

and (e) information on how the offerors' proposals will be evaluated.

The contracting officer also will insert an announcement of the procurement in the Commerce Business Daily summarizing the Agency's procurement requirements and advising prospective offerors where to obtain a copy of the full RFP.

Obviously the quality of the response to the RFP depend largely on how well the sponsoring office defines the Agency's technical requirements in the procurement request. For this reason, we recommend that you discuss your requirements with your contracting officer as soon as you have tentatively defined them. Your contracting officer can help you draft the procurement request package, advise you on the type of procurement that will best meet your needs, estimate the length of time it will take to get a qualified contractor aboard, and generally facilitate the solicitation phase of the procurement.

B. PREPARING THE PROCUREMENT REQUEST PACKAGE

Below are instructions for preparing a procurement request package for a statistical survey. The instructions incorporate the February 1984 revisions to Chapter 2 of EPA's Contracts Management Manual.

To initiate a procurement estimated at more than \$10,000, the sponsoring office must submit a package containing the following documents -- unless otherwise instructed by the contracting officer --

- = A one-page "Procurement Request/Order" (EPA 1900-8), shown in Exhibit 3 on the next page;
- = A "Procurement Request Rationale Checklist," shown in Appendix E, which asks for information on 24 specific items. The "Checklist" replaces the 14-point document ("Procurement Request Rationale") formerly used to describe and justify the procurement requirements of the office initiating the request.
- = All applicable supporting documents listed in item 2 of the Checklist, such as a procurement abstract, a statement of work, technical proposal instructions, and the competitive technical evaluation criteria.

If the required survey support services are budgeted at \$10,000 or less, a "Procurement Request/Order" and a one-page description of the scope of work usually will suffice.

(Shaded areas are for use of procurement office only)

US ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 PROCUREMENT REQUEST/ORDER		1. NAME OF ORIGINATOR		2. DATE OF REQUISITION				
		3. MAIL CODE	4. TELEPHONE NUMBER	5. DATE ITEM REQUIRED				
6. SIGNATURE OF ORIGINATOR		7. RECOMMENDED PROCUREMENT METHOD ☐ Competitive ☐ Noncompetitive						
8. DELIVER TO (Project Manager)	9. ADDRESS		10. MAIL CODE	11. TELEPHONE NUMBER				
12. FINANCIAL DATA (a) APPROPRIATION			NOTE: ITEM 12 (c) DOCUMENT TYPE—CONTRACT = "C," PURCHASE ORDER = "P," IGA = "A," OTHER (Misc.) = "X"					
FMO USE (b) (13 digits)	D T (c)	DOCUMENT CONTROL NUMBER (d) (6 digits)	ACCOUNT NUMBER (e) (10 digits)	OBJECT CLASS (f) (4 digits)	AMOUNT (g) DOLLARS CTS.			
13. SUGGESTED SOURCE (Name, Address, ZIP Code, Phone/Contact)			14. AMOUNT OF MONEY COMMITTED IS: ☐ ORIGINAL ☐ INCREASE ☐ DECREASE		15. CONTRACTING OFFICE ☐ IS ☐ IS NOT AUTHORIZED TO EXCEED AMOUNT SHOWN BY 10% 16. SERVICING FINANCE OFFICE NUMBER			
17. APPROVALS								
a. BRANCH/OFFICE		DATE	d. PROPERTY MANAGEMENT OFFICER/DESIGNEE		DATE			
b. DIVISION/OFFICE		DATE	e. OTHER (Specify)		DATE			
c. FUNDS LISTED ABOVE ARE AVAILABLE AND RESERVED		DATE	e. OTHER (Specify)		DATE			
18. DATE OF ORDER	19. ORDER NUMBER		20. CONTRACT NUMBER (if any)		21. DISCOUNT TERMS			
22. FOB POINT		23. DELIVERY TO FOB POINT BY On or before (Date)		24. PERSON TAKING ORDER/QUOTE AND PHONE NO.				
25. CONTRACTOR (Name, address, ZIP Code)			26. TYPE OF ORDER ☐ a. PURCHASE		REFERENCE YOUR QUOTE (See Block 24)			
			PLEASE FURNISH THE ABOVE ON THE TERMS SPECIFIED ON BOTH SIDES OF THIS ORDER AND ON THE ATTACHED SHEETS, IF ANY, INCLUDING DELIVERY AS INDICATED. THE PURCHASE IS NEGOTIATED UNDER AUTHORITY OF 41 USC 262(c) ()					
			☐ b. DELIVERY PROVISIONS ON THE REVERSE ARE DELETED. THE DELIVERY ORDER IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. (See Block 20)					
			c. ☐ ORAL ☐ WRITTEN ☐ CONFIRMING					
27. SCHEDULE								
ITEM NUMBER (a)	SUPPLIES OR SERVICES (b)		QUANTITY ORDERED (c)	UNIT (d)	ESTIMATED UNIT PRICE (e)	UNIT PRICE (f)	AMOUNT (g)	QUANTITY ACCEPTED (h)
TOTAL \$								
28. UNITED STATES OF AMERICA BY (Signature)			29. TYPED NAME AND TITLE OF CONTRACTING OFFICER					

The sponsoring office must then obtain all required approvals (shown in Appendix F) before forwarding the procurement request package to the contracting officer for action. The level of management approvals required by PCMD depends on the amount budgeted for the support services and the types of services being requested.

The remainder of this section provides some tips on preparing (1) your response to some of the principal "items" on the "Procurement Request Rationale Checklist" and (2) the major supporting documents.

1. Checklist Requirements

Of the 24 "items" on the "Procurement Request Rationale Checklist," 15 are self-explanatory and require only a "check" in the proper box or a one-line descriptive comment. The information requested in Items 8, 10, 11, 12, 13 (a and b), 14, 15 and 18, however, is somewhat more complex. The following will help you complete them.

- Item 8 (Availability of data from other sources).

In Chapter 2 we discussed the importance of preparing a needs assessment at the outset of the project to demonstrate the necessity and feasibility of the proposed information collection activity. Being able to show that there is a clear need for new data is basic to obtaining an OMB clearance for the survey. It is also of vital importance in obtaining approval of your procurement request. Refer to this chapter in preparing this item.

- Item 10 (Recommended sources).

This item gives you an opportunity to recommend particular sources for the procurement. Among the mechanisms available to help you compile a list of sources are --

- A "Sources Sought" announcement in the Commerce Business Daily. Ask your contracting officer to place an announcement of this type in the CBD to solicit prospective sources for the survey support services you require. The purpose of this announcement is to give new contractors in particular an opportunity to submit a capability statement and other materials for consideration by the initiating office and PCMD.

-- The Procurement Automated Source System (PASS) established by the Small Business Administration to increase contract opportunities for small businesses. Consider selecting prospective offerors from this system, particularly for small surveys.

-- The directory of professional minority scientific and technical firms. This current, nationwide directory is available from EPA's Office of Small and Disadvantaged Business Utilization. It is designed to help procurement and project officers identify minority firms as prospective sources for EPA contract work.

Your contracting officer and Small Business representative in PCMD can give you more information on these and other mechanisms designed to promote competition for Federal contracts.

• Item 11 (Anticipated procurement arrangements).

If you expect the survey to cost over \$10,000 and hope to use a noncompetitive procurement, you must support your request with a "Justification for Non-Competitive Procurement" (JNCP). The two principal justifications for a JNCP are (a) urgency -- the amount of time to place the contract is too short to allow for unlimited competition and (b) uniqueness.

The JNCP should clearly explain (a) the circumstances that make a competitive negotiation impractical and (b) the unique or predominant capability of the prospective contractor. It also should indicate what consideration has been given to other sources and the reasons they lack the capability of the firm under consideration.

Federal Procurement Regulations require that a market search or a sources sought synopsis be conducted for certain noncompetitive procurements.

If you propose to use a noncompetitive procurement arrangement, discuss it with your contracting officer before submitting the JNCP.

• Item 12 (Appropriateness of set-aside procurements).

See our discussion of set-aside procurement options in section C of Chapter 1.

- Item 13a (Project schedule).

See our instructions for preparing a project schedule in section B of Chapter 3.

- Item 13b (Schedule of deliverables, excluding reports).

Exhibit 4 on the next page lists the typical deliverables for a survey project. State a due date for each deliverable in terms of "work days" or "calendar days" after the contract award. Use the project schedule to establish tentative deadlines. Also indicate the number of copies of each deliverable you require.

- Item 14 (Options).

See section B-3 of Chapter 3 for a discussion of phasing options.

- Item 15 (Reports).

See our discussion of scheduling in Chapter 3. Also, section C of Chapter 7 suggests the format and content of progress reports, and Chapter 8 is entirely devoted to the final report. Be sure to state that the Agency has review authority over all draft and final reports and estimate the length of time required for these reviews.

- Item 18 (Procurement budget).

Indicate (a) the funds available for the contract and (b) the anticipated level of effort (in terms of person years or similar proxies for dollar estimates). See section C of Chapter 3 for information on budgeting the procurement.

2. Supporting Documents

Below are a few comments on three of the supporting documents generally required for competitive survey procurements: (1) the scope of work (statement of work), (2) concise technical proposal instructions, and (3) competitive evaluation criteria. (The lone supporting document required for noncompetitive procurements was briefly described under Item 11 above.)

(For additional help in preparing these and other supporting documents listed on the Checklist, see PCMD's

LIST OF TYPICAL SURVEY DELIVERABLES

1. Questionnaire(s).
2. Sampling plan.
3. Data analysis plan.
4. OMB clearance justification.
5. A specified number of blank questionnaires, forms, instruction manuals, training materials, manual processing specifications, and other written materials to be used in the data collection activities.
6. Specifications and instructions for the data processing activities, including data cleaning procedures and specifications, tape record layouts, coding instructions manual, and codes.
7. A full account of the data collection results for the original sample showing (a) cases determined to be eligible (complete and incomplete interviews, by reason), and (b) cases determined to be ineligible, by reason.
8. Results of the interview validations.
9. Information on error rates found during verification of the coding and keying operations in the data processing phase.
10. Edited data tapes. (Specify any identifiers the Agency will need to make the survey data compatible with information in other EPA data banks.)
11. Tabulations. (Specify the form and content.)
12. Estimates of sampling error.

Project Officer's Handbook. Their instructions apply to all types of procurements, not to surveys in particular.)

(1) Statement of work.

This is the most critical part of the procurement request package from the standpoint of the sponsoring office. For this reason, all of Chapter 5 is devoted to a discussion of the topics that should be covered in the statement of work for a contract survey.

The statement of work may vary from a simple description of the research objectives to a comprehensive plan for the entire survey. Regardless of how simple or complex, it should clearly define the work to be performed and the contractor's obligations.

In a competitive procurement, the statement of work supplies the bulk of the technical information for the RFP. In a noncompetitive arrangement it outlines the scope of work of the project. The statement of work can strongly influence the quality of the offerors' proposals. Later, possibly with some modifications during the negotiations, it shapes the contract.

At a minimum, to permit the offerors to prepare a technically sound and responsive proposal, the statement of work should include a clear, unambiguous set of survey design specifications covering at least the five key design elements discussed in the previous chapter. To reiterate, these five elements are --

- A clear statement of the research objectives in terms of the kinds of information to be collected, the problems to be solved, and the hypotheses to be tested.
- A clear and complete definition of the target population, including a specification of the reporting units (e.g., individuals, households, businesses), and the coverage.
- A requirement that probability sampling must be used at all stages of respondent selection and that EPA has the right to review the selection procedures.

- The level of precision (sampling error) the Agency will require for one or more of the key statistics. The requirements should be compatible with the funds available for the survey.
- The target response rate for the survey as a whole.

(2) Concise technical proposal instructions.

This supporting document should include any special information you want from the offerors to help in evaluating their technical capabilities. At a minimum, you will want to instruct the offerors to provide information on --

- Their survey research experience, particularly experience with and typical approaches to --
 - Sampling frame refinements;
 - Probability sample designs -- especially for large-scale surveys;
 - Data collection methodology (including follow up procedures);
 - Questionnaire development and testing;
 - Estimation procedures, including nonresponse adjustments;
 - Variance computation procedures -- especially for complex samples;
 - Training and supervision (of interviewers, coders, etc.);
 - Data analysis in large-scale surveys;
 - Data processing;
 - Quality control; and
 - Publications.
- Their relevant prior work, including examples of questionnaires, sampling documentation, interviewing manuals, and survey reports prepared by the firm. Ideally, you should request information on all previous work pertaining to

the subject areas of concern -- not just work the offerors want to submit -- over some reasonable time-frame (say, five years). (The project staff should verify at least a sample of the work cited in the proposals before the discussions/negotiations with the offerors begin.)

- Their staff experience, including the names and resumes of key staff members. It may be desirable to include a "key personnel" clause stating which staff members cannot be replaced without prior approval by the Agency.
- The consultants they plan to use. (Request offerors to include a letter of intent from any key people who are not permanent staff members.)
- The background and experience of their interviewing staff and the qualifications of supervisory and clerical field staff.

You may want the offerors to provide a work break-out indicating exactly what technical services will be performed at each phase of the survey. A break-out is extremely helpful in monitoring and controlling the contractor's progress.

3. Competitive Evaluation Criteria

A document specifying the measurement standards the Agency will use to assess the technical merits of each offeror's proposal uniformly and consistently is essential to support a competitive procurement.

The project officer (and other members of the Technical Evaluation Panel, if any) are responsible for developing both the technical evaluation criteria and a scoring plan. The criteria will also be reviewed by the contracting officer.

Note that the RFP typically will include only a summary of the evaluation factors and the numerical weights assigned to each, but it will give the offerors a sufficient understanding of the relative importance the Agency places on each part of their technical proposals, such as (a) the technical adequacy of the work plan, (b) organizational capability, and (c) the technical qualifications of the staff to be assigned to the project.

See sections A-2 and all of section B in Chapter 6 for further information on evaluating survey proposals.

Also, the Project Officer's Handbook gives detailed instructions for developing the evaluation factors of competitive procurements.

In this chapter we discussed the project officer's principal responsibilities during the first phase of the procurement process. We provided instructions for preparing the paperwork to initiate a procurement request for survey work, with special emphasis on competitive solicitations.

The next chapter, we continue our discussion of the main supporting document in the procurement request package -- the statement of work.

PREPARING THE STATEMENT OF WORK

The statement of work for a contract survey describes the purpose and objectives of the survey, the technical requirements of the award, and the contractor's obligations. We have devoted an entire chapter to the statement of work because it is the most important part of the procurement request package.

As noted in the previous chapter, the project officer typically writes the statement of work, which should be attached to the package as a supporting document. The contracting officer usually will include it intact as an appendix to the RFP. Later, possibly with some modifications, it will be incorporated into the contract.

This chapter discusses --

- The importance of the statement of work to the successful outcome of the project;
- The specific topics the sponsoring office should cover in the statement of work; and
- Tips on compiling the statement.

Our discussion here focuses on the proper content of a statement of work for a competitive solicitation, but many parts are applicable to other procurement options. A statement of work is an essential ingredient of any survey contract.

A. IMPORTANCE OF A WELL-DEFINED WORK STATEMENT

The importance of preparing a work statement that clearly defines the technical requirement of the proposed project cannot be over-emphasized. The statement should be precise enough to allow prospective contractors to propose intelligently, confidently, and competitively, but not so definitive it frightens away qualified competitors.

A work statement that is neither too restrictive nor too broad generally has many positive effects. It will --

= Increase the number of qualified responses to the RFP.

If the statement of work is ambiguous or too broad, qualified firms may elect not to propose because the risk of misinterpreting the Agency's requirements is so great they will not exert the effort necessary for a sound response. Conversely, if it is too restrictive, some capable firms may not propose, fearing the Agency will over-control their performance.

= Improve the quality of the proposals.

If the project staff has highly qualified statistical staff and knows exactly what type of technical assistance it wants, a detailed work statement is sometimes appropriate. Maximum specification of the survey design will communicate exactly what the Agency expects from the offerors, but it also allows the offerors to reiterate the Agency's stated requirements. An inflexible work statement also tends to discourage any attempt to improve on the stated requirements.

= Hold down the cost of the survey.

The offerors' perceptions of the risks involved in undertaking the work outlined in the RFP may affect the contract price.

If the work requirements are well defined and sufficiently flexible to permit offerors to demonstrate their understanding of the research problem and their ability to help the Agency resolve it, negotiating a firm fixed-price contract may be possible. This type of contract requires less administrative oversight by the Agency and thus lowers the total cost of the project.

An ill-defined work statement, on the other hand, usually makes it necessary for the Agency to use a more expensive alternative -- a cost-reimbursable contract -- because neither the Agency nor the contractor can estimate the costs precisely enough to agree on an acceptable fixed price.

= Facilitate the evaluation process.

If the scope of work and the scoring plan are clearly defined in the RFP, it is much easier for the Agency to evaluate the proposals fairly. Offerors also are less likely to misinterpret the Agency's requirements.

B. SUGGESTED CONTENT OF THE STATEMENT OF WORK

The next thirteen pages discuss the topics the sponsoring office should cover in the statement of work. There are 24 topics (shown in Exhibit 5) organized into four categories:

- (1) Purpose, objectives, and background of the study;
- (2) Design specifications;
- (3) Data collection requirements; and
- (4) Data processing, tabulation, and analysis requirements.

We recommend that the project officer -- or whoever writes the statement of work for the procurement request package -- include some information under each topic to help prospective offerors prepare their proposals. This means --

- = Specifying the Agency's requirements for the particular topic; or
- = Asking the offerors to state how they intend to deal with the topic if awarded the contract; or
- = Both.

Content for each of the 24 topics is suggested below.

1. Purpose, Objectives, and Background of the Study

The topics in the first category are (1) purpose of the survey, (2) research objectives, and (3) background material.

(1) Purpose of the study.

Succinctly state the reasons the Agency is undertaking the survey. Indicate whether the substantive findings are to be definitive or whether the survey is intended as a pretest, pilot test, or feasibility study. State how the survey results are intended to support program goals and cite any relevant statutes. If appropriate, briefly discuss the research problem in the larger context of the Agency's mission, particularly if the survey is part of an ongoing research program.

(2) Research objectives.

Define the research objectives as clearly and precisely as possible in terms of the information to be collected and the hypotheses to be tested.

TOPIC GUIDE FOR THE STATEMENT OF WORK

1. PURPOSE, OBJECTIVES, AND BACKGROUND OF THE STUDY
(1) - Purpose of the study (2) - Research objectives (3) - Background information
2. STUDY DESIGN SPECIFICATIONS
(4) - Target population and coverage (5) - Target response rate (6) - Required use of probability sampling (7) - Level of precision (sampling error) (8) - Sampling plan (9) - Sampling frame
3. DATA COLLECTION REQUIREMENTS
(10) - Collection methods (11) - Questionnaire(s) (12) - Pretests (13) - Data rights (14) - Respondent's obligation to reply (15) - Confidentiality (16) - Incentive payments to respondents (17) - Advance notice to respondents (18) - Length of interviews (19) - Interviewer qualifications (20) - Interviewer training (21) - Quality control of the data collection
4. PROCESSING, TABULATION, AND ANALYSIS REQUIREMENTS
(22) - Quality control of the data processing (23) - Data descriptions (24) - Tabulation and analysis

If possible, include the key study variables. (See our discussion of this topic in section A-1 of Chapter 3.)

(3) Background information.

Discuss any available reference material or data that would help prospective offerors develop their proposals, e.g., studies done by the Agency (or others), sampling frames, estimates of the number and geographic distribution of the target population, findings of related research.

(If these materials are not too bulky, they can be included as attachments to the RFP. Otherwise, indicate when and where offerors can obtain them. Do not include material that would be of interest only to the successful offeror.)

2. Survey Design Specifications

Of the six topics in this category, four are among the minimum design specifications discussed in Chapter 3, namely, (4) target population and coverage, (5) target response rate, (6) required use of probability sampling, and (7) level of precision (or sampling error). The two additional related topics are (8) the sampling plan and (9) the sampling frame.

For additional information on all of these topics, see section A-1 of Chapter 3.

(4) Target population and coverage.

Define the survey population and clearly specify the reporting units (individuals, households, businesses, or industries) from which the information is to be collected. Allow offerors the option of describing alternate units, if appropriate.

Identify the geographic areas to be covered and any subpopulations of special interest to EPA. Clearly indicate any exclusions in coverage.

(5) Target response rate.

Specify a minimally-acceptable target response rate for the survey as a whole and the method offerors should use to calculate it.

As discussed in Chapter 3, many factors have to be considered in determining an acceptable target

rate. Generally speaking, it should not be less than 75 percent (of those eligible to be in the target population -- not just those at home when the interviewers call, for example). A survey expert can help you determine an appropriate rate.

A low response rate will do more to render the survey results questionable than, say, using a sample that is too small. This is because there is no way of making valid inferences from the portion of the population that does not respond. If the response rate in a large survey is low, there is an even greater chance of bias.

Adequate follow-ups of nonrespondents are essential to achieve whatever target rate you set. Ask offerors to specify what they will do to meet the Agency's target. (See Chapter 5 of Volume II for information on establishing quality assurance procedures)

(6) Required use of probability sampling.

State that probability sampling must be used at each stage of respondent selection. You may encounter difficulties in clearing the survey through OMB if you do not insist that probability selection methods be used. OMB requires a special justification if the Agency specifies another selection method. (For more information on sampling, see Chapter 4 of Volume II.)

Except in highly unusual circumstances or for a pretest, we recommend that you ask the contracting officer to insert the following clause in the RFP:

"Unless otherwise specified in the statement of work, any offeror's response to this Request for Proposals (RFP) shall contain probability sampling methods for the selection of respondents or subjects for any survey or other study in which sampling from a defined population is required. Sampling plans and cost proposals shall be based on such methods. If, however, an offeror feels that a nonprobability sampling approach would be more efficient, offeror may elect to submit an alternative proposal in addition to the required proposal. Any offeror not submitting a basic proposal utilizing probability sampling methods shall be considered nonresponsive to the RFP."

(7) Level of precision (sampling error).

The goal of the sample design is to get the least sampling error and the least bias given the available resources. For most surveys, the sample that is ultimately conceived represents a compromise between demands for precision and budget restrictions.

As indicated earlier, it is essential for the Agency to establish the level of precision it will tolerate for one or more of the key statistics. Setting a minimally acceptable rate for sampling error is one of the principal means of assuring achievement of the research objectives.

State the desired level in terms of standard error or relative standard error. Indicate whether it is to apply to any specific subpopulations. Be sure to state your requirements clearly. A misinterpretation of the Agency's requirements for sampling error can lead to gross differences in the clustering and sample sizes the offerors will propose.

The stated level of precision should be compatible with the funds available for the survey. Ask a survey expert to help you determine an error rate that can be achieved given the funds available for the project.

(8) Sampling plan.

Once you have stipulated the level of precision in terms of some minimum allowable sampling error for one or more of the key statistics, ask offerors how they plan to achieve this level.

Instruct the offerors to base their choice of sampling units, sample sizes, and selection methods (for each stage, if applicable) on optimization considerations -- i.e., maximum precision per unit of cost.

More specifically, offerors should be asked to describe and justify:

- Their choice of the sampling units (e.g., persons, households, counties, enumeration districts, businesses, industries).

The Agency can designate the units for some stages of selection such as the primary sampling units (PSUs), and ask the offerors to define the remaining units in the sample.

For a multiple-stage sample design, it may be useful to require offerors to use a certain number of PSUs. Otherwise, the resulting sample might not yield acceptable results.

- Their choice of sample size. As we recommended earlier, do not specify the initial sample size. It is not desirable or practical for EPA to specify both the sample size and a minimally-acceptable level of precision. The reason is it may not be possible to achieve the desired level of precision using a sample of the prescribed size, given the resources available for the work. You may require a minimum sample size for specific subgroups of special concern, however.
- The methods they propose to use to select units from the frame (at each stage, if a multiple stage sampling plan is to be used).
- Any variation from strict probability sampling the offerors consider necessary to deal with any special problem such as unavoidable coverage deficiencies.
- The methods they propose to use to control and measure biases and other nonsampling errors during the data collection and data processing.

(9) Sampling frame.

An accurate, up-to-date, complete frame is essential if the sample is to represent the target population adequately. Indicate whether the Agency will provide the frame -- the sources from which the sample members will be selected -- or whether the contractor is to develop it. You may recommend certain sources.

Ideally, the sampling frame should fully cover the target population. Therefore, be sure to indicate any areas or subgroups that should be excluded, i.e., Alaska, Hawaii, military bases.

If the Agency is to supply the frame, make sure (a) there are no legal or regulatory restrictions

preventing its use, such as confidentiality provisions in the Federal Privacy Act or environmental statutes; (b) it is current, complete, and contains no duplications; and (c) you can get it to the contractor in a usable format in time to meet the project schedule.

On the other hand, if you want the contractor to supply the sampling frame, ask offerors to provide information on how they propose to construct the frame and ensure its accuracy.

3. Data Collection Requirements

The next twelve topics relate to the data collection methodology, specifically to requirements for (10) collection methods, (11) questionnaire(s), (12) pretests, (13) data rights, (14) respondent's obligation to reply, (15) confidentiality, (16) incentive payments to respondents, (17) advance notice to respondents, (18) length of interviews, (19) interviewer qualifications, (20) interviewer training, and (21) quality control.

(10) Collection methods.

Ask offerors to justify the methods and techniques they intend to use to collect the data. You may suggest an acceptable data collection method and explain any time constraints on the data collection phase, but we recommend you do not specify the collection methodology unless you have good reasons for doing so. (See Chapter 2 of Volume II for more information.)

(11) Questionnaire(s).

Include a draft questionnaire, if possible. It gives the offerors a basis for estimating the costs of collecting and processing the data. Otherwise, include a list of suggested questions or state EPA's information requirements in sufficient detail to allow offerors to construct a preliminary questionnaire and determine the amount of effort required to polish and test it.

Indicate whether open-ended or precoded, multiple-choice answers are to be used, and whether responses will be mandatory or voluntary.

Also indicate any special requirements such as (a) a Spanish-language version in areas where

Spanish is the predominant language, (b) different versions of the questionnaire to bring out local concerns in various regions, or (c) supplemental diaries.

State how many copies of the questionnaire will be required and who is to reproduce them.

The contractor should have a major role in the development of the final questionnaire, but the Agency should retain review authority. (We recommend that you have an Agency survey expert review the final questionnaire. Unless the questions are properly phrased, the resulting data are apt to contain serious biases.)

(See Appendices B and C for examples of questionnaires used in recent EPA surveys. Also see Chapter 3 of Volume II for information on the entire questionnaire-development process.)

(12) Pretests.

A pretest or pilot test is the only way of making sure the survey is workable. A pilot test replicating the proposed methodology as closely as possible is vital for many surveys. (A pretest assesses the validity of the questionnaire only, as a rule.)

If you intend for the contractor to pretest the survey, ask offerors to propose:

- The size of the test sample. Pretest or pilot test samples should be large enough to bring out any significant problems with the questionnaire (or the proposed data collection techniques).

OMB clearance is not required if fewer than ten respondents are used. However if (a) the sample is very large, or (b) the questionnaire is complicated and lengthy, or (c) the target population is very heterogeneous on key characteristics, a test population this small is not adequate. Although an additional clearance will be required if ten or more respondents are used in the pretest, the review often has significant benefits. It can reveal overlap with ongoing data collection activities in other agencies or ways of improving the proposed methodology.

- A method for selecting the respondents. While probability sampling is important for choosing the respondents in the survey proper, it usually is not necessary for a pretest. One or more "purposive" samples are frequently chosen for a pretest to make sure that advance information on key subpopulations is obtained.
- The timing of the pretest. Offerors should allow enough time between the pretest and the actual survey to analyze the results and amend the questionnaires (and methodology) accordingly.
- Ways to increase the utility of the survey results. For example, consultations with potential data users often provide valuable tips that will improve the questionnaire. Users also may comment on the degree of precision they would like to see and the timing of the survey.

(13) Data rights.

Discuss (a) how the rights of data subjects or respondents are to be protected, (b) Agency policies for monitoring interviews, and (c) policies governing the use of the survey data. Offerors should be required to assure respondents that their interests will be protected to the maximum possible extent.

If the data are being collected for general statistical purposes, the Agency usually can advise respondents that the information they supply will be used only for statistical tabulations and that individual replies will be kept confidential. If not, the respondents should be advised of the extent of disclosure, how the Agency intends to use the data, and who will be permitted access to it.

(14) Respondent's obligation to reply.

Indicate whether responses will be voluntary or mandatory. The Paperwork Reduction Act also requires that questionnaires include information on the respondent's obligation to reply.

(15) Confidentiality.

Discuss confidentiality and ask offerors to state the measures they intend to take to protect the

information the respondents supply.

Confidentiality is of prime concern to all reputable survey research organizations. However, if the Agency promises confidentiality, the contractor may have to take special precautions (e.g., lock up data and allow access only by authorized personnel).

Consult an attorney in the Office of General Counsel (OGC) about the extent to which the Agency may pledge confidentiality and the measures that should be used to safeguard respondents' data. This should be done before the questionnaire is submitted for OMB clearance.

(16) Incentive payments to respondents.

Advise offerors if the respondents should be financially compensated for completing the questionnaire and explain why this is necessary. Incentives do not always contribute to a higher response rate, but they may be crucial to the success of a lengthy or complex survey. Completing or responding to a questionnaire may require a significant amount of work or time on the part of the respondents. If replies are voluntary, consider compensating respondents for their time.

If you do plan to pay the respondents, get the approval of your Division Director. You also will have to explain these payments in the OMB clearance request. If the success of the survey depends on compensating respondents, discuss this with the Information Management Branch early on.

(17) Advance notice to respondents.

The response rate of many surveys can be considerably improved if the respondents are given advance notice of the Agency's intent to collect certain information. This gives them an opportunity to review their records and documents before they are interviewed and speeds up the process.

If you intend to have the contractor handle the advance notifications, advise offerors of this requirement so they can plan their resources accordingly. (For additional information on all aspects of interviewing, see Chapter 5 of Volume II.)

(18) Length of interviews.

Specify a time limit or ask offerors to propose a ceiling on the length of the interviews. Some respondents will not cooperate if the interview is too long.

If you let the offerors know approximately how many questions you intend to ask, it will be easier for them to propose the interview length. Generally speaking, face-to-face interviews should not last more than 60 minutes; 30 minutes is the upper limit for a telephone interview. For a voluntary household survey, 120 minutes is the maximum time you can expect respondents to devote to a mail questionnaire. For an industrial survey, where the Agency can require mandatory responses, however, there is no need to limit the length of the interviews.

(19) Interviewer qualifications.

Indicate any special qualifications the interviewers should have, such as expertise in a specific field of study, knowledge of a foreign language, or previous interviewing experience with certain types of respondents (e.g., corporate executives).

(20) Interviewer training.

Ask offerors how they propose to train the interviewers (e.g., printed interviewer guides, training conferences), and state whether the Agency will participate in or observe the training.

(21) Quality control

Quality control of all data collection operations -- checking sample selection, verifying interviews, etc. -- is vital to ensure that the survey design is faithfully implemented. However, we recommend that you do not stipulate any particular quality-control procedures. State only that quality control is a necessary element of the survey and ask the offerors to say how they propose to control the quality of the data collection.

4. Data Processing, Tabulation, and Analysis Requirements

Specify or require information from the offerors on all applicable aspects of the data processing and analysis

operations (e.g., procedures for editing and coding, keying instructions for processing personnel, verification procedures, any required tabulations, weighting for nonresponse and missing data, and any analysis requirements).

At a minimum, the following topics -- (22) quality control, (23) data descriptions, and (24) tabulations and analysis -- should be covered in the statement of work.

(22) Quality control of data processing.

We recommend that you do not specify any particular quality control techniques for the data processing operations. Rather, ask offerors to state how they propose to control them, e.g., checking the editing and coding of the responses.

(23) Data descriptions.

Specify the format of all data tapes, cards, and printouts the contractor is to supply. For example, indicate if the data tapes must be compatible with EPA computers.

(24) Tabulation and analysis.

If possible, indicate the form and content of the tabulations. Otherwise, ask the offerors to supply table shells.

If you wish the contractor to analyze the data, specify in what form you want them presented. (For additional information on preparing an analysis plan, see Chapter 1 of Volume II. For more information on data processing, see Chapter 6 of that volume.

C. TIPS ON COMPILING THE WORK STATEMENT

Before you begin to write --

- = Review all applicable laws and Agency regulations, procedures, and policies and discuss them, as appropriate, with other program officials, your contracting officer, your Information Management Coordinator, and your representative in the General Counsel's Office. This will allow you to make the offerors aware of any applicable environmental statutes and Federal laws that may

impose constraints on the survey, such as the Privacy Act and the Paperwork Reduction Act.

- = Examine other Agency work statements, solicitation documents (RFPs), and contracts dealing with similar research. Query staff who have worked on these projects about problems they encountered and ask them how you can avoid them in your survey.

While you're writing --

- = Be sure to include all technical requirements and contractor obligations. Surprising offerors during the negotiations with changes in the scope of the work may cause serious problems, particularly if the changes affect the schedules or budgets they have proposed.
- = Use illustrations to enhance offeror understanding of technical provisions.
- = As for language --
 - Be as concise and clear as possible. Use accurate, consistent terminology. Avoid words with more than one meaning, jargon, and pronouns with vague antecedents.
 - Use mandatory language properly. Use "shall" to express a binding provision in a work statement. Use imperatives for obligatory requirements -- e.g., "The following areas shall be covered in the survey..."

Before sending the document to your supervisors for review --

- = Carefully edit the text. Check for unnecessary duplications, contradictions, typing errors, omissions, etc.
- = Have a statistician or sampling expert review the survey design specifications.

This chapter presented a topic guide to help in drafting the technical content of the statement of work for a typical contract survey. The guide includes 24 topics, all of which should be covered to help the prospective offerors prepare their proposals.

We also discussed the positive effects of a well-defined work statement on the response to the RFP, the evaluation of the proposals, and the price of the contract.

The next chapter examines the project officer's role in selecting the contractor, especially in evaluating the technical proposals.

SELECTING THE CONTRACTOR

This chapter examines the project officer's role in the next phase of the procurement process -- the evaluation of the offers received in response to the RFP and the selection of a qualified firm to carry out the survey. More specifically, it explains --

- The project officer's administrative and advisory responsibilities in evaluating the proposals and selecting the most qualified offeror; and
- Tips on evaluating the technical proposals.

A. THE PROJECT OFFICER'S ROLE IN SELECTING THE CONTRACTOR

After the deadline for receipt of the proposals and until the contract is awarded, the project officer has many important advisory and administrative responsibilities such as (1) safeguarding information from the offerors, (2) evaluating the technical proposals, (3) and assisting the contracting officer in the discussions or negotiations with the offerors in the competitive range. These activities are briefly described below.

Keep in mind that, as in all phases of the procurement process, the Procurement and Contracts Management Division (PCMD) plays the lead role in the source evaluation and selection process.

For all competitive procurements in excess of \$25,000, the PCMD official in charge of this phase -- the Source Selection Official -- is responsible for (a) appointing the members of the Source Evaluation Board (if convened), the Technical Evaluation Panel, and the Business Evaluation Panel; (b) overseeing all administrative and procedural aspects of the procurement; (c) making final decisions on the competitive range and selection of the contractor; and (d) approving the contract document. If the award is expected to be more than \$5 million, the contracting officer will serve as the Source Selection Official -- unless the

the Chief of the Contracting Office designates someone else to serve in this capacity. (For more complete information on PCMD's role in the evaluation and selection process, see Subpart 1515.6 of the EPA acquisition regulation.)

1. Safeguarding Information from Offerors

Throughout the source evaluation and selection phase of the survey, all Agency personnel must be careful to comply with Federal policies governing the handling and disclosure of information about the procurement. These policies are designed to prevent any offeror from gaining an unfair competitive advantage in the awarding of a contract.

Therefore, as project officer, remind your staff --

- To keep all information received from offerors in strict confidence. This means taking proper care in handling the proposals and any supplementary information the offerors may submit for clarification purposes prior to the award.
- To disclose no information about the pending procurement to people outside the Agency. Only authorized contracts personnel may do this.
- To refer all correspondence or inquiries about the survey, the RFP, and the status of the evaluation or the negotiations to the contracting officer. All correspondence sent to the offerors must be signed by the contracting officer.

2. Evaluating and Scoring the Proposals

The sponsoring office's principal impact on the selection of the contractor is in performing the technical evaluation of the offers received in response to the solicitation (the RFP). The project officer always chairs the Technical Evaluation Panel, which has sole responsibility for reviewing and scoring the offerors' organizational and staff capabilities and the technical adequacy of the proposed work plans. The Source Selection Official (usually the contracting officer), on the other hand, determines the composition of the Technical Evaluation Panel.

If the award is expected to be \$500,000 or less, the project officer may be the only member of the panel. On awards over \$500,000, the panel also may include

technical experts from inside and outside the Agency, statisticians, and perhaps someone from the target population.

As soon as the deadline for receipt of the proposals expires, the contracting officer (or another contract specialist delegated by the Source Selection Official) will forward copies of the technical proposals to you. The panel must evaluate and score them according to the criteria and scoring plan described in the RFP. Each member of the Technical Evaluation Panel must independently evaluate and score each proposal. If the procurement is valued at more than \$500,000, you (as panel chairperson) must develop a consensus opinion on the scores the panelists assign to each offer. You may not average the individual panelists' scores to arrive at an overall score for the panel as a whole.

When the panel completes its evaluation of the offerors' initial proposals, you must submit a technical evaluation report to the contracting officer. The report must include --

- A detailed scoring of each offer received, and a narrative summary of facts and findings regarding the significant strengths, weaknesses, and risks associated with each offer. For procurements valued at \$500,000 or less, you may use the two-page EPA Form 1900-61, "Proposal Technical Evaluation, to report on each offeror (see Exhibit 6.) A separate page 2 should be used for each evaluation criterion.
- Any clarification of the technical proposal you want the contracting officer to request from the offerors.
- A statement that the panel members have no (actual or potential) personal conflicts of interest.
- Information indicating an actual or potential organizational conflict of interest on the part of any offeror.

The panel's report also should include --

- Any suggested modifications in the statement of work to be discussed with the offerors.
- A justification of any recommendation to eliminate certain offerors from further consideration.

The contracting officer will examine the scores and other information in the technical evaluation reports



US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

PROPOSAL TECHNICAL EVALUATION

RFP NUMBER AND TITLE

OFFERER

EVALUATED BY

DATE

MAXIMUM SCORE ATTAINABLE

EVALUATION SCORE

GENERAL COMMENTS

EXHIBIT 6

TITLE OF CRITERION		ASSIGNED WEIGHT <i>(in points)</i>
%	Value	Descriptive Statement
0	0	The element is not addressed, or is totally deficient and without merit.
20	1	The element is addressed but contains deficiencies that can be corrected only by changes to relevant portions of the proposal.
40	2	Clarification is required. Final scoring of the element will be made following limited discussions or full negotiations.
60	3	The proposal element is adequate. Overall it meets specifications.
70	3.5	None.
80	4	The proposal element is good with some superior features.
90	4.5	None.
100	5	The proposal is superior in most features.
SCORE (% of Assigned Weight)		
COMMENTS		

price and other factors, determine which offerors are within the competitive range and thus eligible for further consideration.

3. Supporting the Discussions and Negotiating with Offerors in the Competitive Range

Once the Source Selection Official approves the selection of the offerors in the competitive range, the contracting officer will begin to conduct limited cost/technical discussions with these firms. The discussions (or negotiations) may consist of a single phone call or a series of face-to-face meetings. As the procurement dictates, the discussions will culminate with in-depth negotiations with one or more firms, or complete cost and technical negotiations with all the offerors in the competitive range.

Throughout this period, the contracting officer may consult you (and other members of the Technical Evaluation Panel, perhaps) about cost and price matters as well as technical concerns. Although the technical panel serves primarily in an advisory capacity, you may be asked to participate in the discussions/negotiations if --

- The Source Selection Official determines that the complexity and proper interpretation of the Agency's requirements necessitate expert technical participation;
- Further clarification of the revised proposals is necessary;
- There is a need for an explanation of any technical deficiencies in the proposals or the offerors' plans to rectify these deficiencies; or
- PCMD desires a technical assessment of certain options (brought out in the negotiations) that may reduce the cost of the contract.

If you and the other panelists do participate in these meetings, do not to discuss the ideas or approaches of any of the offerors still in contention.

You may also have to prepare supplemental technical evaluation reports of any revised proposals the offerors submit at the Agency's request.

Finally, you will have to deliver a supplemental evaluation report to the Source Selection Approval Official

once you have completed your assessment of the revised proposals and prior to the final selection. A supplemental report must be prepared for each offeror in the competitive range.

The report should include --

- = A discussion of whether or not the cost proposal adequately reflects the substance of the technical proposal and the requirements of the solicitation;
- = A summary evaluation of the offeror's technical performance on recent or current projects; and
- = Any changes to the initial technical scores and a narrative evaluation, based on discussions (or negotiations) and the revised technical proposal.

The contracting officer will review the final technical evaluation reports and prepare a source selection decision document outlining the consideration given to price, technical merit, and other factors such as the offerors' prior performance, subcontracting plans, etc.

The contracting officer (or other contract specialist serving as the Source Selection Official) then will make a final determination on the contract award.

B. EVALUATING THE TECHNICAL PROPOSALS

Because the project officer has the lead role in the evaluation of the technical proposals, the remainder of this chapter is devoted to suggestions for weighing (1) the overall technical quality of the initial proposals; and the technical adequacy of the (2) survey design, (3) work plan, and (4) organizational and staff capabilities of each offer.

1. General Evaluation Considerations

First, we'll discuss some overall evaluation considerations.

Assuming that the Agency's technical requirements were well defined, each offeror should demonstrate a clear understanding of the scope of work outlined in the RFP and possibly further clarified at one or more preproposal conferences.

A misinterpretation of one or more of the Agency's requirements generally indicates a weakness in the

proposer's technical capabilities. Of course, if most of the offerors misinterpret the same requirements, you probably did not clearly state them in the RFP.

Note that if the Agency failed to include a key requirement -- that probability sampling must be used, for example, the proposal cannot be low-rated solely because the offeror failed to account for the omission.

If the Technical Evaluation Panel determines that the Agency's failure to adequately define or include a certain key requirement may seriously prejudice the survey outcome, the panel can ask the contracting officer to amend the RFP and receive revised offers. This will delay the project considerably but it may be the only way to ensure that the research objectives can be achieved.

To the extent the design specifications in the RFP permit, the overriding consideration in evaluating the technical proposals should be the relative efficiency of the proposed survey designs.

From the standpoint of technical adequacy, the most "efficient" design is the one proposing to provide statistics having the highest level of precision (the least sampling error). The "cost" of this efficiency must be taken into account later in the course of the selection process.

2. Evaluating the Key Design Elements

As we have emphasized throughout this handbook, the successful outcome of the survey depends largely on the Agency's specifications for certain key design elements. In evaluating the technical adequacy of the offers, therefore, it is important to pay special attention to how the offerors propose to meet EPA's requirements governing (a) target population and coverage, (b) target response rate, (c) use of probability sampling, and (d) level of precision (sampling error).

Assuming you clearly specified the Agency's requirements concerning these four key design elements, some of the major considerations for evaluating them are --

- Target population and coverage.

Look for any exclusions in coverage that were not expressly discussed in the RFP.

For example, in order to propose a low per-unit cost, some offerors may exclude Hawaii or Alaska (from a "national" survey) or certain "difficult-to-get" subpopulations such as non-English-speaking households or institutionalized people. If the RFP did not specify these exclusions, you will have to weigh the advisability of allowing them. If the Agency decides to allow any exclusions proposed by an offeror, the others must be given an opportunity to amend their proposals accordingly.

- Target response rate.

Assuming the RFP established a minimally-acceptable response rate for the overall survey and asked the offerors to indicate how they plan to meet this target rate --

- (1) Carefully scrutinize the offerors' plans for following up the interviews of the initial sample. Do not give an unfair advantage to offerors who propose a minimal or vaguely defined follow up in order to come up with a low offer.

For example, if one of the offerors proposes to substitute respondents after a certain number of unsuccessful attempts to collect data from the the initial sample, both the precision of the statistics and the cost of the survey will be affected. Substituting respondents will permit the offeror to achieve the Agency's target rate at a lower cost, but the likelihood of bias is higher.

If the RFP specified the number and timing of follow-ups in nonresponse situations, check to see if the Agency's requirements were correctly interpreted. Any misinterpretation of these requirements may indicate technical weakness. Failure to allow sufficient staff time for the follow-up work also is indicative of technical inadequacy. (See Chapter 5 of Volume II for more information on follow-up interviewing.)

- (2) Carefully examine the proposed data collection procedures to see if they are are likely to elicit adequate responses from key subgroups in the target population. For example, for some surveys it may be important to provide bilingual interviewers or interviewing materials to avoid underrepresentation of particular ethnic groups.

- (3) Examine the response rates offerors achieved in previous surveys to see if they attained the target rates they initially proposed. Also check the quality control procedures used to achieve those rates (e.g., use of advance letters to respondents, respondent incentives, and follow-ups by trained interviewers). Careful attention to quality control is a good barometer of technical competence.

- Use of probability sampling.

Assuming the RFP required the use of probability sampling throughout the selection process (except in the pretest, perhaps), check for --

- (1) Any planned substitutions for nonresponse situations. Substitution generally is not an acceptable method for reducing the nonresponse rate. Any departure from full probability sampling in selecting respondents during the survey tends to introduce bias, especially in larger samples.
- (2) Any departure from probability sampling in selecting individual respondents within sampling units (e.g., households, businesses). To save time and money, some offerors may plan to allow interviewers to use their own judgment in selecting the individual respondents within each sampling unit. This generally should not be allowed because it tends to produce bias.
- (3) Vague descriptions of the procedures to be used for selecting respondents. The proposals should give a step-by-step description of the procedures that will be used to ensure a full probability sample. If a proposal says something like "200 counties will be selected..." and does not specify that the selection will be made with "equal probability" or with "probability proportionate to size," the Agency cannot determine whether the offeror intends to use probability selection techniques. More importantly, it will be impossible to determine the efficiency of the proposed design.

Be especially wary about buying into an existing sample. Some survey research firms maintain general-purpose, multistage household samples and may propose to use one of them. Or an offeror may propose to draw the sample from a commercially-available list of businesses or industries.

If any offeror proposes to use an existing sampling frame --

- (1) Have a sampling expert review (a) the design specifications, (b) the actual worksheets to be used in selecting the sample, and (c) other relevant materials.
 - (2) Review the suggested modifications in the frame carefully. The proposal should indicate how (a) the offeror intends to ensure the completeness of the frame, (b) new units will be added, (c) inactive units will be eliminated, and (d) how "foreign" or ineligible units will be identified.
 - (3) Make sure there are no restrictions on the use of the sampling frame that would prohibit the Agency from publishing information about the sample.
- Level of precision (sampling error).

Assuming the RFP required a certain level of precision (or margin of error) for one or more of the key statistics, make sure offerors have correctly interpreted the requirements. Any misinterpretation of these requirements is likely to indicate a weakness in the offerors' technical capabilities.

If you asked the offerors to state how they plan to carry out the data collection and data processing operations, much can be gleaned about a offeror's statistical competence by reviewing their proposed "estimation procedures." These are procedures used to estimate the statistics (means, proportions, etc.), deal with missing data, and control sampling errors. Your review should focus on whether the proposed estimation formulas --

- (1) Take proper account of the sample design and selection probabilities of individual units; and
- (2) Make full use of ancillary data known to be available for all members of the target population, whether or not they are included in the sample.

We strongly recommend that you have a sampling expert evaluate the proposed estimation procedures. Also,

see Chapter 4 of Volume II for further information on all aspects of sampling.

3. Evaluating Key Aspects of the Work Plan

Offeror responses to the following topics in the statement of work are also highly indicative of their technical competence: (a) the data collection methodology, (b) the pretest provisions, and (c) the quality control procedures proposed for both the data collection and data processing activities.

- Data collection methodology.

The methods and procedures the offerors propose to use for collecting data generally are a good indicator of technical competence.

Some of the things to look for are --

- (1) The appropriateness of the proposed data collection method (face-to-face or telephone interviews, mail questionnaires or a combination of methods). There are real limits on the type and amount of information that can be successfully collected with different methods. For example, personal interviews are not appropriate for getting detailed answers to complex technical questions if respondents must consult their records in order to provide adequate answers. er-Face-to-face interviews also are contraindicated if time and cost are prime considerations; on the other hand, this collection method is highly appropriate for clarifying and probing respondents' knowledge and experiences.

Telephone surveys are usually more difficult to design than face-to-face surveys. Depending on the subject matter, a phone interview may require a very elaborate script. Interviewers have to be able to anticipate all possible answers in order to pursue a given line of questioning -- like a flowchart, if Yes..., if No.... If this method is proposed, carefully examine the "script." (See Appendix C for an example of a telephone interviewer's guide.)

Moreover, if the sampling units are households, offerors should include provisions for covering households without telephones or those with unlisted numbers.

Random-digit dialing is a frequently proposed technique for selecting respondents for a telephone survey. The advantages of this technique are (a) its relatively low cost, (b) it does not exclude unlisted numbers, (c) it permits good control over the interviewing process, and (d) it gives quick results. It has two disadvantages: The response status or units that do not reply is difficult to determine, and commercial units cannot be distinguished from residential units. Therefore, offerors proposing to use this technique should demonstrate an awareness of its pros and cons, and indicate how they intend to handle its limitations.

If offerors propose to use a mail questionnaire for the survey, carefully check the procedures they plan to use for developing the questionnaire. The length and format of the questionnaire are particularly critical for a mail survey. Generally speaking, the longer the questionnaire, the poorer the quality and quantity of the responses. The items on a mail questionnaire, moreover, must be carefully written because no interviewer will be present to clarify any ambiguities.

Moreover, unless the Agency has the authority to require a mandatory response, a mail survey seldom achieves an adequate response rate.

(See Chapter 2 of Volume II for further information on the relative advantages of various data collection techniques. Chapter III presents a step-by-step discussion of the development of the questionnaire.)

- (2) The appropriateness of the respondents. The specific individuals the offerors propose to interview should be capable of providing the particular information the Agency needs. For example, if you wanted information about the number and type of employees in certain businesses, interviewing the presidents of these firms probably would not be the best way to get it. A mail questionnaire to the firms' personnel directors would be more appropriate. On the other hand, if you wanted information about the decision-making processes of these firms, face-to-face interviews with their chief executive officers would be most appropriate.

- (3) The requirements for respondent eligibility. In surveys involving multi-unit samples (households, for example), the "rules" governing which individuals may be interviewed at each unit can significantly affect the validity and cost of the survey.

Generally speaking, if your objective is to learn more about public attitudes and opinions, only certain individuals within the sample units should be allowed to respond. While respondent rules usually permit some substitutions (e.g., if the intended respondent cannot be reached after a given number of attempts, any responsible adult in the same household may be interviewed), a nonrandom selection of respondents will produce erroneous or invalid results in certain cases. For example, a nonrandom selection of respondents for a household survey conducted during the day would not truly represent the attitudes and opinions of all the people in the households. The reason is that members of the household who work during the day will be poorly represented.

• Pretest provisions.

Because it is rarely possible to anticipate all the problems and biasing effects of the proposed questionnaire and field procedures, the proposals should include provisions for one or more pretests (or pilot tests). This is the only reliable way of finding out if the questionnaire is workable and, in the case of a pilot test, if the proposed data collection methodology is practicable. The principal things to look for in the offerors' plans for pretests are --

- (1) Adequate representation of the survey population. Since the purpose of a pretest (or pilot test) is to evaluate the workability of the actual survey, the proposed respondents should approximate those to be used in the survey proper. Although probability selection is unnecessary for a pretest, the offerors should not propose "convenient" or "easy-to-get" units. Probability sampling is generally essential for a pilot test.
- (2) Size of the test sample. For a major survey, a pretest or a pilot test using fewer than ten respondents usually is not large enough to

reveal all the problems the interviewers are most likely to encounter in the field. To save time and avoid the need for an additional OMB clearance, offerors sometimes propose a test population of only nine respondents. This should be discouraged because a sample this small generally is not adequate to test an extremely variable population.

- (3) Adequacy of other test conditions. Since the purpose of pretests is to anticipate and correct problems before the survey begins, the instructions to respondents, the questionnaire, interviewing techniques, the time allowed for response, and other test conditions in the proposals should closely approximate those planned for the survey proper.
 - (4) Sufficient time to incorporate the pretest results. A common mistake in proposal schedules is underestimating the time required to develop a satisfactory questionnaire. Offerors should allow ample time to correct any problems that arise during the pretest. They also should indicate that additional pretests will be carried out if the results of the initial test are not adequate. (See Chapter 3 of Volume II for more information on questionnaire construction.)
- Quality control procedures for the data collection and data processing activities.

The nature and extent of the quality control procedures proposed for each step in the data collection and data processing phases are usually highly indicative of technical ability. Attention to quality control is also a good barometer of the adequacy of the offerors' work plans in general.

At a minimum, the quality controls proposed by the offerors should include --

- (1) "Validation" of some proportion -- typically 10 percent -- of the interviews. Validation commonly consists of verifying that the interviews did in fact take place and checking responses to a few key questions.
- (2) Manual checks of questionnaires for completeness and proper entry.

- (3) Spot checks of all manual coding operations, including comparisons of the results and error rates achieved by different interviewers.
- (4) Verification -- usually 100 percent -- of any keying (card punching or key-to-tape) operations.
- (5) Computer edits to detect inadmissible and out-of-range values.

Other quality control procedures indicative of technical competence are --

- (1) An objective validation of the interview process. Some firms propose to have a subcontractor validate the data collection effort. This is often preferable to having it done by the contractor's own staff.
- (2) Whether the proposed procedures for verifying the data processing are "dependent" or "independent."

Verification is considered to be independent if the verifiers do not have access to the results of the operation they are verifying. Errors are identified by comparing the original results with those done by the verifier. Generally, independent verification is more likely to produce accurate estimates of error rates, but it is more costly.

- (3) A definition of the levels of error that will be considered acceptable and what actions will be taken when these levels are exceeded.

4. Evaluating the Offerors' Organizational and Staff Capabilities

In addition to scoring the technical adequacy of the proposed work plans, you must carefully assess each offeror's (a) organizational capability and (b) the technical strengths of their key staff and consultants. The proposals should respond to each of the items you asked the offerors to discuss in the RFP.

The successful outcome of the survey depends as much on the contractor's ability to execute the proposed work plan as on the merits of the work plan itself.

Some of the most important things to consider in evaluating each offeror's management and technical qualifications are --

- The track record of the organization and its expertise in the subject area (e.g., previous experience in contract survey management, demonstrated expertise in the area of the proposed research, special access or relationship to the target population, references).
- The adequacy of the proposed management plan. (Does the offeror have adequate staffing and appropriate facilities and other equipment? Are the plans for training staff and interviewers, etc., adequate?)
- The experience and technical qualifications of key staff members and consultants. (For example, if the survey is national in scope, the offeror should have a national network of interviewers, considerable experience in survey management, and a diversity of technical skills.)

In this chapter we examined the project officer's role in selecting a qualified contractor to provide the survey support services described in the RFP. In addition to discussing the project officer's administrative and advisory responsibilities, we made suggestions for evaluating the technical adequacy of the proposals and the offerors' organizational capabilities.

The next chapter examines the project officer's role in managing the survey after the contract is awarded.

MANAGING THE CONTRACT

This chapter gives instructions for managing the survey after the contractor is aboard. In a contract survey, effective management of the post-award phase of the procurement is as important to accomplishing the survey objectives as a well-thought-out work plan.

Specifically, this chapter examines the project officer's role in --

- Generally fulfilling the Agency's contractual commitments;
- Obtaining internal and OMB approval of information collection activities;
- Monitoring and controlling the contractor's technical performance; and
- Helping to administer the contract.

A. FULFILLING THE AGENCY'S CONTRACTUAL RESPONSIBILITIES

The project officer and the contracting officer are jointly responsible for ensuring that the survey is conducted in accordance with the terms of the contract. Your authority and limitations will be specified in the contract. Usually the project officer is delegated authority for --

- = Technical oversight of the contract, which involves fulfilling the Agency's technical commitments as well as monitoring and controlling the contractor's performance throughout the survey; and
- = Certain administrative oversight activities which support the contracting officer in fulfilling the legal and operational terms of the contract.

It is important for you to make sure the Agency fulfills its technical commitments. Any delays or omissions by the project staff in maintaining EPA's contractual commitments may prevent the contractor from legally meeting the terms

of the contract and thus excuse the contractor from meeting some of their obligations.

For example, if EPA is committed to supplying the sampling frames or certain data for the analysis work and the project staff does not provide them on time, the contractor may not be able to meet the agreed deadlines. Agency commitments to review and approve the deliverables or to obtain clearances from other Federal agencies (OMB, for instance) in a timely manner also force EPA to share the responsibility for the contractor's performance. Section B below examines the sponsoring office's role in obtaining OMB clearances.

You also must carefully monitor the contractor's progress throughout the life of the contract and, if necessary, control it. This does not mean you personally must oversee all the technical provisions of the contract, but you are responsible for seeing that they are properly developed and executed. You can obtain whatever technical assistance is necessary from your staff, other Agency experts (including statistical experts and consultants), or other contractors. Section C below discusses these monitoring activities at length.

Your role in supporting the contracting officer's fulfillment of a host of administrative responsibilities is examined in section D below. Keep in mind that only the contracting officer can make changes in the contract, either within or outside the scope of work. Always consult with your contracting officer when you wish to make any changes or issue directions to the contractor that may represent (or lead to) a change in the contract.

B. OBTAINING OMB CLEARANCES

As discussed in Chapter 3, the Paperwork Reduction Act requires all Executive Branch agencies to obtain a clearance from the U.S. Office of Management and Budget (OMB) for information collections involving ten or more members of the public. Hence, a clearance is required for the survey and for any pretests involving ten or more respondents. You may request clearance for the pretest and the survey in the same clearance package, however.

To meet requirements of the Act, one of the sponsoring office's most important responsibilities in virtually all contract surveys is to prepare the paperwork to obtain OMB clearance for any applicable information collections. This means submitting a "clearance package" through channels

and answering the reviewers' questions during the clearance process.

To obtain an OMB clearance --

- (1) Contact your office's Information Management Coordinator or the Information Management Branch (IMB) in the Office of Policy, Planning and Evaluation for instructions in preparing the clearance. They will help you expedite the clearance and advise you of its progress.
- (2) Complete Parts I and III of Standard Form 83 (SF 83), "Request for OMB Review" (see Exhibit 7). Use the instructions OMB has prepared for completing this form. (See the Information Management Coordinator in your office for copies.)
- (3) Prepare the required supporting statement detailing and justifying the Agency's need for the information. You may ask the contractor to draft this statement, but review it carefully to be sure it meets all OMB requirements. (Contact the Information Branch or your Information Management Coordinator for help in preparing the supporting statement and the survey questionnaire.)
- (4) Submit three copies of the completed clearance form (SF 83), the supporting statement, and the questionnaire -- collectively referred to as "the clearance package" -- to your Information Management Coordinator for a preliminary review for accuracy and completeness.
- (5) Forward the package to OPPE's Information Management Branch (IMB) for review and submittal to OMB.

IMB recommends that you submit the clearance package to them (in draft or final form) for an advance review as early as possible, preferably before the survey design is completed. IMB may return it with suggested changes before sending it through Agency channels to OMB.

OMB clearance can be a lengthy process, so allow ample time for both internal and external reviews of the clearance package. Allow at least two-weeks for each office that must review the package. Under the Act, OMB has 60 days to review the package (90 days if it grants itself an extension), but it is prudent to allow for the possibility of a lengthy delay. A contingency plan should always be built into the contract to avoid any legal problems should OMB seriously delay the project or disapprove the survey altogether.

Request for OMB Review

Important

Read instructions before completing form. Do not use the same SF 83 to request both an Executive Order 12291 review and approval under the Paperwork Reduction Act.

Answer all questions in Part I. If this request is for review under E.O. 12291, complete Part II and sign the regulatory certification. If this request is for approval under the Paperwork Reduction Act and 5 CFR 1320, skip Part II, complete Part III and sign the paperwork certification.

Send three copies of this form, the material to be reviewed, and for paperwork—three copies of the supporting statement, to:

Office of Information and Regulatory Affairs
Office of Management and Budget
Attention: Docket Library, Room 3201
Washington, DC 20503

PART I.—Complete This Part for All Requests.

1. Department/agency and Bureau/office originating request

2. Agency code

3. Name of person who can best answer questions regarding this request

Telephone number

4. Title of information collection or rulemaking

5. Legal authority for information collection or rule (*cite United States Code, Public Law, or Executive Order*)

____ USC _____, or _____

6. Affected public (*check all that apply*)1 ☐ Individuals or households3 ☐ Farms5 ☐ Federal agencies or employees2 ☐ State or local governments4 ☐ Businesses or other for-profit6 ☐ Non-profit institutions7 ☐ Small businesses or organizations**PART II.—Complete This Part Only if the Request is for OMB Review Under Executive Order 12291**

7. Regulation Identifier Number (RIN)

_____, or, None assigned ☐8. Type of submission (*check one in each category*)**Classification**1 ☐ Major2 ☐ Nonmajor**Stage of development**1 ☐ Proposed or draft2 ☐ Final or interim final, with prior proposal3 ☐ Final or interim final, without prior proposal**Type of review requested**1 ☐ Standard2 ☐ Pending3 ☐ Emergency4 ☐ Statutory or judicial deadline

9. CFR section affected

____ CFR _____

10. Does this regulation contain reporting or recordkeeping requirements that require OMB approval under the Paperwork Reduction Act and 5 CFR 1320?

☐ Yes ☐ No

11. If a major rule, is there a regulatory impact analysis attached?

If "No," did OMB waive the analysis?

1 ☐ Yes 2 ☐ No3 ☐ Yes 4 ☐ No**Certification for Regulatory Submissions**

In submitting this request for OMB review, the authorized regulatory contact and the program official certify that the requirements of E.O. 12291 and any applicable policy directives have been complied with.

Signature of program official

Date

Signature of authorized regulatory contact

Date

12. (OMB use only)

PART III.—Complete This Part Only if the Request is for Approval of a Collection of Information Under the Paperwork Reduction Act and 5 CFR 1320.

13. Abstract—Describe needs, uses and affected public in 50 words or less

14. Type of information collection (check only one)

Information collections not contained in rules

1 ☐ Regular submission

2 ☐ Emergency submission (certification attached)

Information collections contained in rules

3 ☐ Existing regulation (no change proposed)

6 Final or interim final without prior NPRM

4 ☐ Notice of proposed rulemaking (NPRM)

A ☐ Regular submission

5 ☐ Final, NPRM was previously published

B ☐ Emergency submission (certification attached)

7. Enter date of expected or actual Federal Register publication at this stage of rulemaking (month, day, year): _____

15. Type of review requested (check only one)

1 ☐ New collection

4 ☐ Reinstatement of a previously approved collection for which approval has expired

2 ☐ Revision of a currently approved collection

3 ☐ Extension of the expiration date of a currently approved collection without any change in the substance or in the method of collection

5 ☐ Existing collection in use without an OMB control number

16. Agency report form number(s) (include standard/optional form number(s))

22. Purpose of information collection (check as many as apply)

1 ☐ Application for benefits

2 ☐ Program evaluation

3 ☐ General purpose statistics

4 ☐ Regulatory or compliance

5 ☐ Program planning or management

6 ☐ Research

7 ☐ Audit

17. Annual reporting or disclosure burden

1 Number of respondents

2 Number of responses per respondent

3 Total annual responses (line 1 times line 2)

4 Hours per response

5 Total hours (line 3 times line 4)

18. Annual recordkeeping burden

1 Number of recordkeepers

2 Annual hours per recordkeeper

3 Total recordkeeping hours (line 1 times line 2)

4 Recordkeeping retention period years

19. Total annual burden

1 Requested (line 17-5 plus line 18-3)

2 In current OMB inventory

3 Difference (line 1 less line 2)

Explanation of difference

4 Program change

5 Adjustment

23. Frequency of recordkeeping or reporting (check all that apply)

1 ☐ Recordkeeping

Reporting

2 ☐ On occasion

3 ☐ Weekly

4 ☐ Monthly

5 ☐ Quarterly

6 ☐ Semi-annually

7 ☐ Annually

8 ☐ Biennially

9 ☐ Other (describe): _____

20. Current (most recent) OMB control number or comment number

24. Respondents' obligation to comply (check the strongest obligation that applies)

1 ☐ Voluntary

2 ☐ Required to obtain or retain a benefit

3 ☐ Mandatory

21. Requested expiration date

25. Are the respondents primarily educational agencies or institutions or is the primary purpose of the collection related to Federal education programs? ☐ Yes ☐ No

26. Does the agency use sampling to select respondents or does the agency recommend or prescribe the use of sampling or statistical analysis by respondents? ☐ Yes ☐ No

27. Regulatory authority for the information collection

_____ CFR _____ ; or _____ FR _____ ; or, Other (specify): _____

Paperwork Certification

In submitting this request for OMB approval, the agency head, the senior official or an authorized representative, certifies that the requirements of 5 CFR 1320, the Privacy Act, statistical standards or directives, and any other applicable information policy directives have been complied with.

Signature of program official

Date

Signature of agency head, the senior official or an authorized representative

Date

Keep the contractor regularly advised of the status of the clearance. In no case should the contractor contact IMB, other Agency officials, or OMB directly regarding the status of the package.

When OMB grants the clearance, they will assign a control number for the information collection activity. Both the control number and the expiration date must appear in specific locations on the questionnaire and other interviewing instruments. Be sure to give the contractor clear instructions about OMB's requirements in this regard.

After the survey is in progress, send the Information Management Branch of OPPE copies of the final printed questionnaire(s), the letter of transmittal and instructions to the respondents, and other relevant written materials EPA or the contractor sends to the respondents during the course of the survey. IMB will retain the copies in its official clearance files.

If, at any point in the data collection process, either you or the contractor decides to make any significant change in the questionnaire or the methods used to collect the information, you must obtain formal approval from OMB. Similarly, if the data collection is not completed by the expiration date of the clearance, you must apply for an extension. Consult the Information Management Branch or your Coordinator about the procedures for obtaining these additional OMB approvals.

C. MONITORING THE CONTRACTOR'S PERFORMANCE

This section (1) examines the three most common mechanisms for monitoring the contractor's performance during the survey and (2) provides tips on controlling the quality of the data collection and data processing activities.

1. Monitoring Mechanisms

Once the contract is awarded, the project officer's relationship with the contractor takes on an operational dependency. This means exercising critical judgment in determining how much oversight of the contractor's work is necessary and where it should be focused. Different surveys, depending on their size and complexity, require different degrees of oversight.

The principal mechanisms available to the sponsoring office for overseeing the contractor's adherence to the schedule, budget, and technical provisions of the

contract are (a) contractor progress reports, (b) oral briefings or presentations, and (c) on-site visits to the contractor's facility and the interviewing sites. These mechanisms are examined below.

- Progress reports.

Periodic progress reports from the contractor at intervals stipulated in the contract normally provide most of the information you will need to monitor the status of the survey. These reports should summarize:

- Progress in completing required tasks and deliverables;
- Work planned for the next scheduled reporting period;
- Any problems that may affect the scheduled tasks or deliverables;
- Any preliminary technical findings (even though they are tentative and not intended for wide distribution); and
- The cost status of the contract.

The Agency's standard monthly progress report clause for cost-reimbursable contracts requires the contractor to track the financial status of the contract. This will keep you up to date on the relationship of expenditures to progress under the contract. We recommend that you ask the contractor to graph the cost status of the contract for you. This is an effective way of preventing cost overruns -- more effective than the expense vouchers contractors periodically submit for completed work. Expense vouchers do not give an up-to-date record of actual expenditures because frequently there is a timelag of several months before the contractor bills the Agency for completed work. (See Exhibit 8 for an example of a well-prepared cost status report.)

- Briefings or presentations.

Periodic oral briefings or presentations by the contractor at various milestones -- the completion of the pretest or the data processing operations, for example -- are also effective means of tracking the contractor's performance. These may be held at the

contractor's facility or at EPA. To minimize travel costs, telephone briefings may sometimes suffice, particularly for small-scale surveys.

- On-site inspections.

Effective monitoring tools include: personal visits to the contractor's main facility, the pretest site, and one or more field locations when the interviewing is in progress. On-site inspections are an excellent way of checking on the contractor's adherence to the quality-control procedures in the contract.

For a major survey, we recommend that you use all of the above monitoring mechanisms to ensure that the contractor is performing work in accordance with the terms of the contract.

2. Monitoring the Data Collection and Data Processing

Stringent quality control by the contractor at each step of the (a) data collection and (b) data processing is necessary to ensure that errors and biases are kept to a minimum.

Below are some suggestions for monitoring the contractor's performance during these two major phases of the survey.

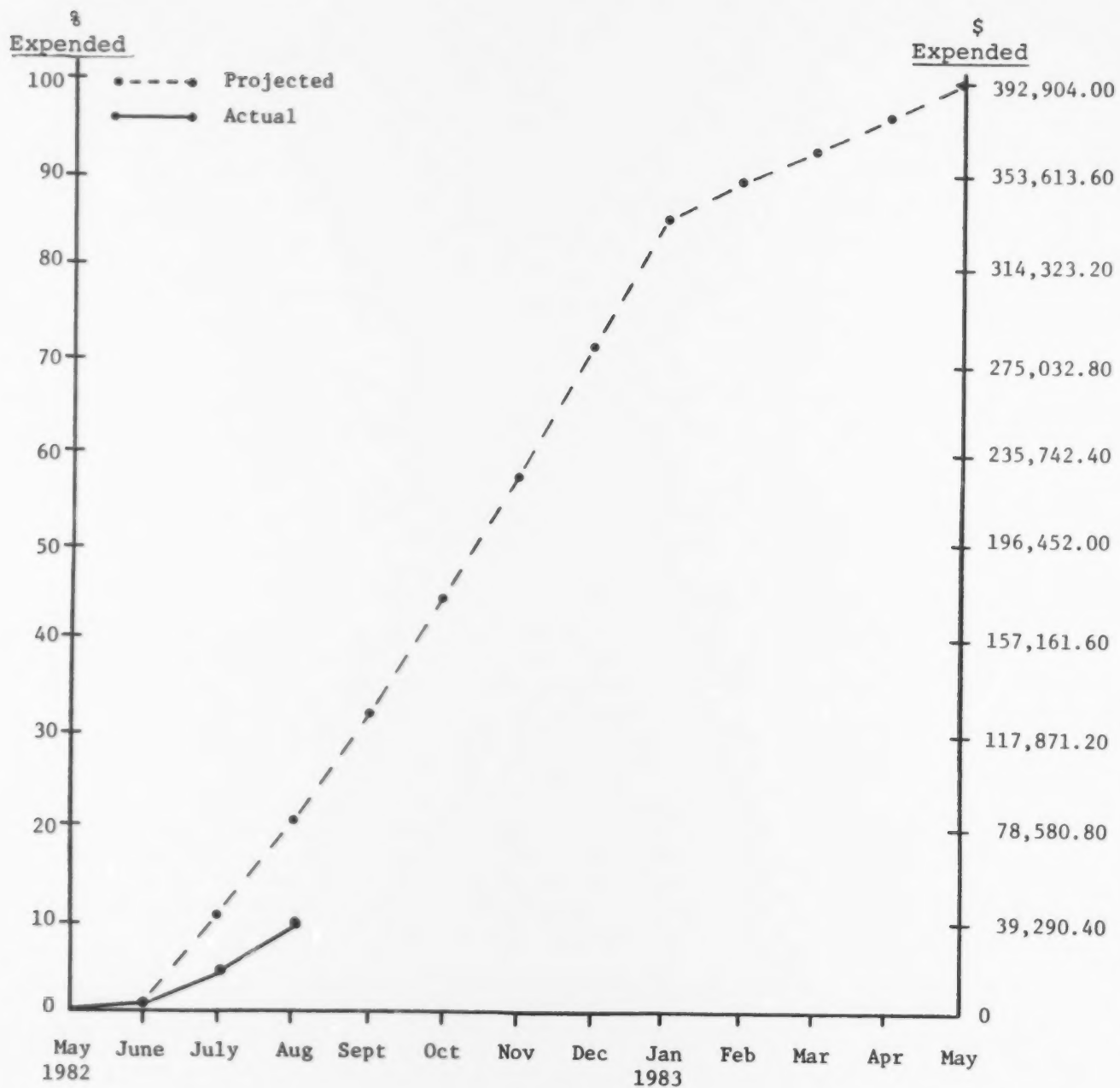
- Quality control of the data collection activities.

During the data collection phase, carefully check the contractor's performance in executing four steps in particular: (1) the pretest, (2) the training of staff personnel, (3) the follow-up of interviews, and (4) the data validation and verification.

(1) The pretest.

As pointed out in earlier chapters, the most effective way of ensuring the success of the data collection is thorough a pretest of the questionnaire and, if feasible, of the proposed field procedures as well (a pilot test).

To help guarantee the validity of the pretest, have a survey statistician review the contractor's plan and the draft questionnaire before the pretest begins. Afterwards, make sure any modifications suggested by the pretest results are incorporated into the survey proper.

EXAMPLE OF A COST STATUS REPORT

(2) Training of contractor personnel.

Proper training of the interviewers and other personnel involved in the data collection operations is also critical to the success of this phase of the survey.

If the contractor is collecting the data through telephone or personal interviews, it is especially important to have a survey specialist review the contractor's plans for recruiting and training the interviewers. Then, before the training and field activities get under way, have the specialist check the contractor's training guidelines and handbooks for the interviewers and the people who will do the editing, coding, and quality control operations. These materials should be scrutinized for consistency and adherence to the procedures in the contract.

In addition, for a major survey, you or a key member of your staff should attend at least one of the interviewer training conferences to explain the Agency's research objectives and policies regarding contact with the public, and to resolve any substantive issues concerning the interviewing procedures before the field operations begin.

(3) Follow-up of the interviews.

After the interviewing is in progress, you will want to make occasional visits to the contractor's main facility (and the field locations, if appropriate) to make sure the contractor is adhering to the procedures specified for following up the initial interviews.

For example, the contractor should make no substitutions of respondents (unless specified in the contract), and should repeat interviews (or mailings) on a sample of the respondents and some nonrespondents to make sure there has been no bias against individual interviewers.

(4) Data validation and verification.

When the interviewing of the initial sample is complete, the contractor should provide you with a detailed accounting of the statistical results. Carefully review these preliminary

findings to make sure the contractor has attained the target response rates, weighted the data and made adjustments for nonresponses.

Later, when the data collection operations are complete, review all quantitative reports on the outcome of the validation and verification of the interviews. We suggest that you also have a statistical expert review these reports.

- Quality control of the data processing and analysis activities.

Overseeing the contractor's (1) data processing activities and (2) analytic work, if applicable, are equally important.

- (1) Data processing control.

Site visits are important to ensure that the contractor rigorously controls the data tabulation operations.

The purpose of these visits is to make sure the contractor is using proper procedures to minimize human error and control bias in the coding, key punching, and transcription operations. For example, as the questionnaires are returned or the interviewing completed, the questionnaires and interviewer notes should be checked before they are processed and coded.

Open-ended questions should receive special handling and coding. You may want to have members of your staff work with the contractor in developing codes for open-ended questions and proper procedures to deal with missing or "unanswered" questions.

Also check the editing of the data tapes. Once data have been entered into the computer, the contractor should edit the tapes to eliminate or clarify inconsistent or illogical entries.

(See Chapter 6 of Volume II for details of the data processing activities.)

- (2) Data analysis.

The final result of the data processing operations is a "clean," virtually error-free data

file. This serves as the basis for the statistical analysis that will answer the concerns the survey was designed to address.

Proper management of the data analysis is vital. The type of oversight the sponsoring office gives to the analysis depends largely on whether the Agency or the contractor compiles the statistics.

If the Agency is required to prepare the analysis, make sure that the data file includes whatever information the project staff will need to calculate sampling error. If the contractor is required to do the analysis, have a statistical expert review the contractor's estimates of sampling error before the analytic work is started.

Finally, regardless of who prepares the analysis, have a statistical expert review both the analysis techniques and the findings for accuracy, consistency, and completeness.

(See Chapter 7 of Volume II for details of the analysis process.)

D. PROVIDING ADMINISTRATIVE SUPPORT

In addition to having total responsibility for technical oversight of the contract, the project officer also must assist the contracting officer in fulfilling certain administrative provisions.

These support activities include (1) maintaining records of the survey, (2) reporting contractor progress, (3) authorizing contractor payments, (4) recommending approval of subcontracts, (5) evaluating personnel changes, (6) guarding against cost overruns, (7) recommending approval of contract modifications, (8) evaluating contractor performance, and (9) helping to close out the contract.

The specific tasks for which you are responsible are described briefly below.

1. Maintaining Records of the Survey

You must maintain complete, up-to-date, accurate records of the survey. Thorough recordkeeping and well-maintained files are important in case key project staff leave before the contract is closed out.

Be especially careful to keep records concerning the contractor's adherence to the terms of the contract and the schedule. You will need this information to evaluate the contractor's performance. Also retain copies of all deliverables so you can answer inquiries after contract close-out.

2. Reporting Contractor Progress

Keep all interested and involved parties -- your contracting officer, your supervisors, other agencies, advisory groups, etc. -- informed about the contractor's progress.

Be sure to report any deviations from the terms of the contract to your contracting officer, such as --

- Any performance failure by the contractor;
- Any proposed changes in key staff;
- Delays in the schedule;
- Lapses in technical requirements;
- Any changes in the scope of the contract;
- Inappropriately incurred costs;
- Deviations in travel expenditures;
- Misuse of patented items or privacy data; and
- Any failure by the Agency to meet its contractual obligations.

While you should assist the contractor in any way that will further the Agency's interests, be careful not to do anything that may affect the scope or direction of the contract without obtaining prior approval from the contracting officer.

3. Authorizing Contractor Payments

To control contractor expenditures and ensure that EPA meets its research objectives, provisions in cost-reimbursable contracts require prior authorization and approval by the contracting officer for --

- Subcontracting activities (with some exceptions);
- Acquisition of equipment;

- Reimbursement of costs exceeding the limitations established in the contract; and
- Reimbursement for overtime or premium wage payments.

Be careful not to give the contractor permission to spend contract funds for any of the above without the contracting officer's approval. However, because all these activities relate to the technical provisions of the contract, your contracting officer generally will consult you before withholding or granting authority for payment of these expenditures.

4. Recommending Approval of Subcontracts

EPA has no authority to direct the performance of sub-contractors but must work through the prime contractor. As indicated above, the contractor must obtain prior Agency approval for any subcontracting arrangement. The contracting officer will ask you for a recommendation before approving any such arrangement.

5. Evaluating Personnel Changes

The contractor must notify the Agency reasonably well in advance if it becomes necessary to replace key personnel after the contract is awarded. Any substitution requires prior written consent from the Agency. The contracting officer also will ask you for your recommendation before approving any substitution request.

6. Guarding Against Cost Overruns

Cost overruns occur when a contractor exceeds the negotiated estimate on a cost-reimbursable contract. (Generally, cost overruns do not apply in a fixed-price contract because the contractor is legally responsible for any costs exceeding the total price.)

Contractors are required to notify the Agency whenever the total cost of the survey may be higher or significantly lower than the negotiated amount. By keeping track of the expenditures in progress reports and other monitoring mechanisms (discussed earlier in this chapter), you may be able to anticipate a potential cost overrun.

However, if at any point in the survey you have reason to believe that a cost overrun is likely, bring it to the attention of the contracting officer immediately and recommend that the Agency --

- Terminate the contract before the overrun occurs;
- Decrease the amount of work of the contract so no additional funds are needed; or
- Increase the contract funds so the contractor can carry out the additional work.

If you recommend that additional funds be made available and the contracting officer agrees, prepare a new procurement request and rationale statement and forward them through channels to the Procurement and Contracts Management Division (PCMD). (See Chapter 4 for proper procedures.)

7. Recommending Contract Modifications

Sometimes it is necessary to make changes in the scope of work or to include additional coverage for situations not anticipated during the negotiations. However, you must not authorize the contractor to modify the scope of work in any way. Only the contracting officer can do that. Any unauthorized modification makes the Agency vulnerable to a claim for the additional costs the contractor may incur.

The contracting officer generally has the authority to direct the contractor to make changes in the scope of work provided an equitable adjustment is made in the price and/or delivery schedule. All contract modifications must be formalized in a written agreement between the contracting office and the contractor.

8. Evaluating Contractor Performance

You are responsible for evaluating the deliverables as they are submitted and for making recommendations to the contracting officer regarding their acceptability. Advise the contracting officer if you believe that contractor payments should be withheld because certain terms of the contract have not been met. Both fees and progress payments can be entirely or partially withheld pending resolution of the problem.

9. Helping to Close Out the Contract

The final step in the administration of the contract is referred to as "contract close-out." This is a formalized procedure triggered by the submission of all required deliverables and/or the completion of all the specified tasks.

As soon as the contractor has completed all work on the contract to your satisfaction, notify the contracting officer in writing so the contract can be closed out quickly and efficiently. You also must complete an EPA form evaluating the contractor's technical performance, and submit all records pertaining to the administration of the contract to the contracting officer (except material that would compromise the confidentiality of the respondents).

In this chapter we examined the project officer's principal post-award responsibilities: monitoring, controlling, and evaluating the contractor's technical performance; maintaining the Agency's technical commitments and supporting the administration of the contract. In the next chapter we discuss the final phase of the survey -- the documentation and release of the findings.

REPORTING AND DISSEMINATING THE FINDINGS

Virtually all survey contracts require a comprehensive final report. For a major survey, more than one final report may have to be written to communicate the data and statistics effectively to both technical and general audiences.

This chapter examines the project officer's role in --

- Overseeing the preparation of the contractor's final report;
- Circulating drafts for review and comment; and
- Releasing and disseminating the survey findings.

A. OVERSEEING PREPARATION OF THE FINAL REPORT

As project officer, one of your most important responsibilities during the final phase of the survey is to oversee the documentation of the survey. In most cases, this involves reviewing the outline and each draft submitted by the contractor.

All survey reports should be issued as EPA documents. Therefore, it is essential that you carefully review all draft reports submitted by the contractor for accuracy, completeness, and appropriateness for the intended audience. Do not neglect early drafts because conceptual and structural errors are difficult (and expensive) to correct in the final stages of the writing.

The survey findings should not be overstated or sensationalized. Statistical information concerning health risks or health consequences, in particular, should be presented in a way that will not unduly alarm affected subpopulations, businesses, local communities, etc.

While it is beyond the scope of this handbook to give detailed instructions on how to write a survey report, below are some general suggestions for (1) focusing and (2)

organizing a final survey report. In addition, Exhibit 9 presents an outline for the final report. We suggest that you pass these ideas along to the contractor or, in the event the Agency is required to write the final report, to your staff for guidance.

1. Focusing the Content

What is said and how it is said depends on the intended audience --

- If the primary audience of the report is engineers and scientists, a detailed account of both the methods the researchers used to obtain the data and the analytical findings is appropriate. Extensive support documentation should be included as well, e.g., the questionnaire, the survey design specifications, interviewer training materials, the coding and keying instructions, the data collection and data processing procedures, and the tabulation and analysis techniques.
- On the other hand, if the report is intended for a general audience, the emphasis should be on the results of the research -- what was learned rather than how the information was obtained. The text should be written in plain English and contain a minimum of technical and statistical terminology.

2. Organizing the Text

The survey report should include (1) an executive summary, (2) an introduction describing the background and objectives of the research, (3) a description of the methodology, (4) the data tabulations and analytic findings, (5) the major conclusions, and if appropriate, (6) recommendations for further study or action. More specifically --

(1) Executive summary.

An executive summary is essential for any survey report more than ten pages long. The summary should be placed at the beginning of the report. In one to four pages it should discuss the purpose and significance of the study, the major technical findings and conclusions, and the potential applications of the research. Any comments on how the information was obtained should be kept to a minimum. The focus should be on the results -- what was learned.

SUGGESTED CONTENT OF A SURVEY REPORTEXECUTIVE SUMMARY (OR ABSTRACT)

- Purpose of the survey.
- Brief summary of the results or conclusions.
- Summary statement of the significance of the research and its possible applications.

INTRODUCTION

- Statement of the research objective (why the survey was undertaken), its relation to the Agency's Mission, and the legal authority under which the study was conducted.
- Summary of previous research and publications on the problem.
- Major survey design features (target population, coverage, sampling error, response rate, etc.).
- General approach used to accomplish research objectives.
- Explanation of any unusual or original features of the survey.
- Statement of the organization of the main body of the report.

METHODOLOGY

- Description of the sample design (sampling frame, sample size, selection procedures, estimation procedures, procedures for estimating variances, etc.).
- Procedures used to pretest the questionnaire and field operations.

. . .

- Data collection procedures (procedures used to select, train, and supervise interviewers and validate their work; methods used to achieve the target response rate; methods and techniques used to minimize or control response errors; follow-up techniques; etc.).
- Data processing procedures (procedures used to supervise and validate coding, keypunching, and transcription operations).
- Any other quality control methods.
- Estimates of sampling errors and problems with the data such as missing values, biases, low response rates, etc.
- Tabulation and analysis procedures.
- Procedures for protecting the rights of data subjects and respondents, and for safeguarding confidentiality.

SURVEY FINDINGS

The presentation of the findings is at the discretion of the writer. Be careful to separate the descriptive findings from any interpretive or analytic findings.

CONCLUSIONS

- Summary of the findings.
- Agency assessment of the findings and limitations of the data.
- Summary of the contributions of the survey (what was accomplished).
- Discussion of the significance of the findings and potential applications.

RECOMMENDATIONS (If appropriate)

(2) Introduction.

This part of the report should summarize the objectives of the research, previous research on the subject, the major survey design features, the general approaches used to accomplish the research objectives, and any unusual features of the study. It also should include a brief description of how the remainder of the report is organized. The introduction should not include data tabulations, analytical findings, or conclusions.

(3) Methodology.

This part should discuss how the researchers obtained the information for the main body of the report -- the the survey findings (see part 4 below).

If the report is intended for a general audience, methodological details should be kept to a minimum. In fact, it often is best to summarize the methodology in the introduction or an appendix rather than present it in a separate section.

For a technical audience, however, a chapter on methodology is a must. It should include descriptions of the techniques used to develop the questionnaire, the sampling plan, and the response rates; the procedures used to select and train interviewers; the methods used to collect, process, and weight the data; and any other "process" details. It is essential to include information on sampling error.

(4) Survey findings.

This is the main body of the report, which should contain the descriptive and interpretive (analytical) findings. It may consist of several chapters.

However the findings are organized, the descriptive findings (tabulations and summaries of raw data) should be clearly distinguished from the interpretive findings (inferences or interpretations drawn from the data). Forecasts and projections, too, should be clearly identified.

To enhance reader understanding, line graphs, bar graphs, and pie charts should be used to illustrate major findings, especially for a nontechnical audience. Graphics should not substitute for text,

however. They should highlight and clarify the text.

Charts, graphs, and tables should be clearly labeled with a title, the time period to which the data refer, the affected geographic areas, and the units on the vertical and horizontal scales. Whenever possible, they should be placed immediately following the page on which they are referenced. Tables on top of tables should be avoided; series of tables should be placed in an appendix.

(5) Conclusions.

This part of the report should summarize the major findings. Whether a contractor or the project staff has written the report, you must include EPA's assessment of the quality of the statistics, any conceptual or other limitations of the data, the significance of the research, and the potential applications of the findings. It is also a good idea to compare the findings with research results of other studies similar in size and scope.

(6) Recommendations.

This part is optional. If used, it should include the researchers' recommendations for additional study or action to further the Agency's initial purpose in undertaking the survey.

B. CIRCULATING DRAFTS FOR REVIEW AND COMMENT

When the final draft is completed, submit it for review and comment, as appropriate, to --

- = Other technical experts inside and outside the Agency;
- = An Agency statistical expert;
- = Any relevant advisory committees;
- = Other Federal agencies that have contributed to the study;
- = State and local officials in affected or participating jurisdictions; and
- = Your Office Director and other EPA officials.

It is especially important to have a statistical expert review descriptions of the survey methodology and comment on the statistical statements and conclusions -- e.g., whether the analysis has taken proper account of weights, sampling errors and limitations of the data. This expert also can help you write the Agency's assessment of the statistics, an important part of the "conclusions" section of the report.

For a major survey, you may want to circulate one or more preliminary drafts of the report to these same people during the course of the survey. It may avoid extensive, costly, last-minute revisions.

C. RELEASING AND DISSEMINATING SURVEY DATA TO THE PUBLIC

This section describes Agency procedures for (1) releasing and disseminating survey data, (2) reviewing and approving contract survey reports, (3) issuing press releases, and (4) holding press conferences.

1. Procedures for Releasing Survey Data

The Agency has no specific policies governing the release of survey data to the public. However, to prevent the premature release of statistical findings during the course of the survey and ensure that the results of Agency-sponsored research are reported accurately and with appropriate sensitivity to the impact they may have on affected populations, organizations, businesses, or communities, we recommend that --

- (1) All reports concerning an Agency-sponsored survey, whether oral or written, be issued by EPA, not the contractor.
- (2) The Director of the Office sponsoring the survey (or a higher-level EPA official) should give written approval for the release of new survey data or analytical findings before they are made public.
- (3) If other agencies have participated in the information collection activity, appropriate officials of those agencies should be notified before the data are released. It also may be advisable to brief State and local officials or community leaders of the affected locales before releasing important or "sensitive" findings.

- (4) All survey reports should be disseminated by the Agency.
- (5) Agency staff should initiate any press notices or press conferences announcing the release of new survey data or findings. A staff statistician knowledgeable in the subject area should be present at any meetings with the press when survey results are announced.

The above recommendations generally refer to the initial release of survey data. Once the Agency makes the information public, the contractor is usually allowed to publish or otherwise use the data after a specified date, provided the confidentiality of the respondents is maintained. Data rights and any relevant limitations should be included in the survey contract.

2. Issuing Press Notices

We recommend that the sponsoring office issue a press release before announcing sensitive findings or issuing a survey report of major impact.

To initiate a press release, submit a draft of your announcement to the press liaison in your office. Include a summary of the background and significance of the study as well as the data or findings you want to make public. Include the names and phone numbers of staff to contact for further information. The press liaison will edit the text and submit it to your Office Director for approval before sending out the release.

3. Holding Press Conferences

When you intend to release survey data of major public interest, consider holding a press conference to explain important technical features of the study, to reiterate the Agency's position on the issues, and to answer questions from the press. Your office's press liaison will arrange for the conference. The sponsoring office, however, is responsible for making sure a knowledgeable statistician is present at the press conference.

We recommend that you coordinate any press conferences with officials of jurisdictions likely to be most affected by the findings and invite them to participate.

In this final chapter of Volume I of the Survey Management Handbook, we discussed the project officer's principal responsibilities during the last phase of the survey -- reviewing draft reports submitted by the contractor, circulating them for comment or approval, and releasing and disseminating all reports about the survey.

Remember to consult the "Help Directory" located at the beginning of this volume if you need more information on designing the survey, preparing a schedule and budget, initiating and managing the procurement, or obtaining OMB clearances.

Volume II of the handbook presents additional information on managing surveys after a contractor is hired. It is organized around the survey work plan, in which the contractor describes the methods and procedures to be used in collecting, processing, and analyzing the data from or about the survey population. The principal components of the work plan normally are: an analysis plan, specification of the method(s) of collection, a draft questionnaire and specifications for any pretests, a sampling plan, the interviewing procedures, and the data processing procedures. Volume II also includes a glossary of terms and a list of recommended sources.

ACROYNMS AND ABBREVIATIONS

CBD	<u>Commerce Business Daily</u>
EPA	U.S. Environmental Protection Agency
JNCP	Justification for Noncompetitive Procurement
OMB	U.S. Office of Management and Budget
PASS	Procurement Automated Source System
PCBs	Polychlorinated biphenyls
PRA	Paperwork Reduction Act
RFP	Request for Proposal
RIA	Regulatory Impact Analysis
SMSA	Standard Metropolitan Statistical Area

EPA OFFICES

IMB	Information Management Branch, Regulation and Information Management Division, OSR
MIDSD	Management Information and Data System Division
OARM	Office of Administration and Resources Management
OECM	Office of Enforcement and Compliance Monitoring
OGC	Office of General Counsel
OIRM	Office of Information Resources Management
OPPE	Office of Policy, Planning, and Evaluation (formerly Office of Policy and Resource Management)
OSR	Office of Standards and Regulations, OPPE
PCMD	Procurement and Contracts Management Division, OA
RIMD	Regulation and Information Management Division, OSR
SPB	Statistical Policy Branch, Chemicals and Statistical Policy Division, OSR

APPENDICES

EXCERPTS FROM AN OMB CLEARANCE PACKAGE
PREPARED FOR EPA BY RESEARCH TRIANGLE INSTITUTE
AUGUST 17, 1982

From "Study on Carbon Monoxide Exposure of Residents of
Washington, D.C., and Denver, Colorado"

Program Objectives and Uses of Data

This study is designed to provide a systematic measurement of actual exposures of individuals to CO [carbon monoxide]. The distribution of individuals to be studied is constructed so as to provide a representative range of exposures throughout an individual's 24-hour period. The temporal distribution of exposures is to be recorded based upon activity pattern information from all the participants in the study.

The immediate aim is to validate a methodology for determining population CO exposures in two urban areas (Washington, D. C., and Denver, Colorado) during the period of maximum ambient CO concentrations (October through December). The population exposure profile will be determined by direct measurement of CO with personal exposure monitors (PEM's) through the use of statistical inference from the statistically drawn sample. The study intends to provide sufficient data to determine exposure as a function of concentrations within significant microenvironments (home, in-transit, work and leisure) and individual activity patterns. This will be contrasted to exposure estimates obtained from fixed monitoring results. The study attempts to evaluate the degree to which fixed site monitors may be utilized for estimation of population exposures.

Some specific objectives include the following:

To develop a methodology for measuring the distribution of carbon monoxide (CO) exposures of a representative population of an urban area for assessment of the risk to the population. (It should be noted that this development and evaluation must occur prior to revisions to the CO Criteria Document scheduled for about 1986....)

To test, evaluate, and validate this methodology by employing it in the execution of pilot field studies in Denver, Colorado, and in Washington, D. C.

To collect personal exposure data of sufficient quality to permit the Environmental Protection Agency to compare it with fixed-site data in order to (a) evaluate the representativeness of official air monitoring stations for

estimation of population exposure, and (b) evaluate the feasibility of improving the existing CO siting criteria to better represent air pollution exposures of the population.

To obtain an activity-pattern data base related to CO exposures. This data base will permit the validation of two developed but untested CO exposure models in use within the Agency (SHAPE and NEM)....

Authority

The authority for conducting the proposed research is found in the Clean Air Act, Title 42 U.S.C. 7410, 7619.

Section 110(c) requires that the states have programs for establishing and operating methods to monitor, sample, and analyze data on ambient air quality. Section 319 requires promulgation of regulations establishing uniform air quality monitoring criteria and methodology for measuring air quality according to a uniform air quality index and provides for uniform air quality monitoring systems in major urban areas and other appropriate areas. In order to establish uniform criteria for the operation of these air quality monitoring systems and to develop and evaluate criteria for the siting of fixed monitoring stations that form the heart of these systems, it is essential to obtain field data on exposure frequency distributions of the population of major urban areas operating monitoring systems in compliance with Section 110(c) and 319 of the Act. In addition, Section 104 requires the Administrator to set a standard with an ample margin of safety to protect the human health. To determine whether the public health is being protected at the desired margin of safety, it is necessary to determine the level to which the public is exposed. This information is reviewed every five years and published in a revised criteria document for the pollutant....

Target Population

The target population for the carbon monoxide exposure study includes all non-institutionalized, non-smoking residents of the urbanized portion of the Washington, D. C. SMSA and the Denver, Colorado metropolitan area who are at least 18 years of age at the time of the study. The estimated population size for these groups is 1-1.2 million in Washington, D. C. and 245,000 in Denver, Colorado...

These sites were chosen because (1) they differ in elevation and CO levels, (2) of the interest expressed by officials in

Denver, and (3) of the extensive commuting activities in Washington, D. C. A selection of 1,250 individuals is proposed in order to complete 1,000 interviews in Washington, D. C. A sample of 625 individuals is proposed for Denver, and it is intended to produce 500 completed interviews for the first season (October - December). The 500 respondents will each collect CO monitoring data for two days. An optional second season in Denver (summer) is intended to produce approximately 125 completed interviews so that a two season Denver study would produce 625 completed interviews....

EXAMPLE OF AN EPA SURVEY QUESTIONNAIRE

STUDY OF CARBON MONOXIDE EXPOSURE

Sponsored by:

Environmental Protection Agency
Washington, DC 20460

Conducted by:

Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709

PARTICIPANT QUESTIONNAIRE

RESEARCH TRIANGLE INSTITUTE IS UNDERTAKING A RESEARCH STUDY FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY TO ASSESS MAN'S EXPOSURE TO CARBON MONOXIDE. THE INFORMATION RECORDED IN THIS QUESTIONNAIRE WILL BE HELD IN STRICT CONFIDENCE AND WILL BE USED SOLELY FOR RESEARCH INTO THE EFFECTS OF ENVIRONMENTAL FACTORS ON PUBLIC HEALTH. ALL RESULTS WILL BE SUMMARIZED FOR GROUPS OF PEOPLE; NO INFORMATION ABOUT INDIVIDUAL PERSONS WILL BE RELEASED WITHOUT THE CONSENT OF THE INDIVIDUAL. WHILE YOU ARE NOT REQUIRED TO RESPOND, YOUR COOPERATION IS NEEDED TO MAKE THE RESULTS OF THIS SURVEY COMPREHENSIVE, ACCURATE, AND TIMELY.

Study Number:

--	--	--	--	--	--

INTRODUCTION

The questions in this questionnaire ask about your home, your commuting trips, your place of work, and your leisure activities. Some questions may not apply to you; you are instructed in the questionnaire to skip those questions. Please read the questionnaire carefully and follow all instructions. To complete this questionnaire, you should circle a number or write in your answer. If you have any questions about this questionnaire, the interviewer will be happy to assist you when he or she returns to collect this questionnaire, the monitor, and the Activity Diary.

The first set of questions deals with your home or living quarters.

1. Which of the following best describes your living quarters?
CIRCLE ONE NUMBER.

- 01 One-family house detached from other houses
- 02 One-family house attached to one or more houses
- 03 Duplex
- 04 Apartment
- 05 Mobile home or trailer
- 06 Rented room
- 07 Boat, van, etc.

2. Approximately how many square feet are in your living quarters?

_____ square feet

3. a. How many people live with you in your living quarters?

_____ people → IF "NONE," GO TO QUESTION 4.

- b. How many people who live with you smoke tobacco in any form?

_____ people → IF "NONE," GO TO QUESTION 4.

- c. How many people who live with you smoke cigarettes?

_____ people → IF "NONE," GO TO QUESTION 4.

- d. Approximately how many packs of cigarettes are smoked while you are at home during a normal week?

CIRCLE ONE NUMBER.

- 01 Less than 1 pack
- 02 1-4 packs
- 03 5-7 packs
- 04 8 or more packs

4. Are the following items used in your living quarters, and if so, are they vented to the outside?
CIRCLE ONE NUMBER ON EACH LINE.

	<u>Yes, used and vented</u>	<u>Yes, used but not vented</u>	<u>Not Used</u>
A. Fireplace	1	2	3
B. Wood stove	1	2	3
C. Gas furnace	1	2	3
D. Gas cooking stove	1	2	3
E. Gas hot water heater	1	2	3
F. Gas clothes dryer	1	2	3
G. Gas or kerosene space heater	1	2	3
H. Other gas appliance	1	2	3

↓
(SPECIFY) _____

5. Are the following energy-saving devices present where you live?
CIRCLE ONE NUMBER ON EACH LINE.

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
A. Storm windows	1	2	3
B. Storm door(s)	1	2	3
C. Extra insulation	1	2	3
D. Special dampers in stove or fireplace	1	2	3
E. Other device	1	2	3

↓
(SPECIFY) _____

6. In your living quarters, do you ever use the following types of fans?
CIRCLE ONE NUMBER ON EACH LINE.

	<u>Yes</u>	<u>No</u>
A. Attic fan	1	2
B. Window fan	1	2
C. Other type of fan	1	2

↓
(SPECIFY) _____

7. What is the main type of heating system at your living quarters?
CIRCLE ONE NUMBER.

- 01 Steam or hot water system
- 02 Central warm air furnace with ducts to individual rooms, or central heat pump (forced air)
- 03 Built-in electric units, permanently installed in wall, ceiling, or baseboard
- 04 Floor, wall, or pipeless furnace
- 05 Circulating, radiant, or room heaters, WITH flue or vent, burning gas, oil, or kerosene
- 06 Circulating radiant, or room heaters (not portable) WITHOUT flue or vent, burning gas, oil, or kerosene
- 07 Portable room heaters of any kind
- 08 Fireplace(s) or stove(s) burning coal, wood, or coke
- 09 Some other type
↓
SPECIFY: _____
- 10 No heating equipment
- 94 Don't know

8. Do you ever use air conditioning in your living quarters?
CIRCLE ONE NUMBER.

- 01 Yes, a central air-conditioning system
- 02 Yes, window unit(s)
- 03 No

9. Is there a garage attached to or within the structure in which you live?
CIRCLE ONE NUMBER.

- 01 Yes
- 02 No

10. Are your living quarters located near any of the following sites?
CIRCLE ONE NUMBER ON EACH LINE.

	<u>Yes</u>	<u>No</u>
A. Bus garage	1	2
B. Heavy vehicle maintenance area or depot	1	2
C. Site of open burning	1	2
D. Electricity or steam plant	1	2
E. Manufacturing plant with heavy smoke emission or power generator or furnaces	1	2

11. Do you travel to and from work, school, or any other place on a regular basis at least three times a week?
CIRCLE ONE NUMBER.

01 Yes → CONTINUE
02 No → GO TO SECTION QUESTION 20.

The next set of questions is about the trips you make on a regular basis during a normal week.

12. a. Please list in column A. in the table below each method of transportation (car, bus, subway, walk, etc.) you use in commuting to your destination. If you use more than one method, list them in the order in which you use them.
- b. For each method you have listed in column A., enter in column B. the total minutes you spend using this method to commute to your destination.
- c. In column C., circle "Yes" or "No" to indicate if smokers are present in each method of transportation you have listed.

<u>A.</u> METHOD OF TRANSPORTATION	<u>B.</u> TOTAL MINUTES SPENT	<u>C.</u> SMOKERS PRESENT?
		Yes No
		Yes No
		Yes No

13. Do you return home by the same methods of transportation as those you listed in the table above?

01 Yes → GO TO QUESTION 15.
02 No → CONTINUE.

14. a. Please list in column A. in the table below each method of transportation (car, bus, subway, walk, etc.) you use in commuting from your destination. If you use more than one method, list them in the order in which you use them.
- b. For each method you have listed in column A., enter in column B. the total minutes you spend using this method to commute from your destination.
- c. In column C., circle "Yes" or "No" to indicate if smokers are present in each method of transportation you have listed.

A. METHOD OF TRANSPORTATION	B. TOTAL MINUTES SPENT	C. SMOKERS PRESENT?
		Yes No
		Yes No
		Yes No

15. At what time do you normally arrive at your destination?

Time Arrive: _____ CIRCLE ONE.
AM PM

16. At what time do you normally depart for home?

Time Depart: _____ CIRCLE ONE.
AM PM

17. About how many hours a week do you normally spend in an automobile either as the driver and/or as a passenger? Include all time you spend commuting, shopping, on pleasure trips, etc.

Hours per week: _____ → IF "NONE," GO TO QUESTION 20.

18. Please indicate the make, model, and year of the automobile in which you spend the most time in a normal week.

MAKE: _____

MODEL: _____

YEAR: _____

19. How many of the hours you entered in Question 17 do you spend in the automobile described in Question 18?

Hours per week: _____

20. Do you work either full-time or part-time outside your home?
CIRCLE ONE NUMBER.

01 Yes → CONTINUE
02 No → GO TO QUESTION 32.

The next set of questions deals with the place at which you work.

21. Do you work at least part of the time in an enclosed area, other than in a vehicle?
CIRCLE ONE NUMBER.

01 Yes → CONTINUE.
02 No → GO TO QUESTION 28.

22. Which of the following best describes the enclosed area in which you work the majority of the time?

- 01 Office or other small area, work alone
02 Office or other small area shared with other people
03 Large area (factory floor, laboratory, store, etc.), work alone
04 Large area shared with other people
05 Circulate throughout building
06 Other (DESCRIBE) _____

23. What is the approximate size of the enclosed area in which you work the majority of the time?

_____ feet by _____ feet

24. Is the enclosed area in which you work air-conditioned?
CIRCLE ONE NUMBER.

01 Yes, central air-conditioning system
02 Yes, window units(s)
03 No

25. Is a fan of any kind normally used in the enclosed area in which you work?
CIRCLE ONE NUMBER.

01 Yes, window fan
02 Yes, other kind of fan
03 Yes, both window and other fan
04 No

26. In the enclosed area in which you work the majority of the time, are you in the presence of smokers?
CIRCLE ONE NUMBER.

01 Yes, always (share work space with smoker(s))
02 Yes, most of the time
03 Yes, seldom
04 No

27. What is the main type of heating system at the place at which you work?
CIRCLE ONE NUMBER.

01 Steam or hot water system
02 Central warm air furnace with ducts to individual rooms, or central heat pump (forced air)
03 Built-in electric units, permanently installed in wall, ceiling, or baseboard
04 Floor, wall, or pipeless furnace
05 Circulating, radiant, or room heaters, WITH flue or vent, burning gas, oil, or kerosene
06 Circulating radiant, or room heaters (not portable) WITHOUT flue or vent, burning gas, oil, or kerosene
07 Portable room heaters of any kind
08 Fireplace(s) or stove(s) burning coal, wood, or coke
09 Some other type
 ↓
 SPECIFY: _____
10 No heating equipment
94 Don't know

28. Do you normally work near any of the following sites?
CIRCLE ONE NUMBER ON EACH LINE.

	<u>Yes</u>	<u>No</u>
A. Bus garage	1	2
B. Heavy vehicle maintenance area or depot	1	2
C. Site of open burning	1	2
D. Electricity or steam plant	1	2
E. Manufacturing plant with heavy smoke emission or power generator or furnaces	1	2

29. a. What kind of work do you do? (For example, typist, sales clerk,
truck driver, etc.)

- b. What kind of business or industry are you employed in? (For example,
TV and radio manufacturing, retail shoe store, U.S. government,
etc.)

30. How many hours do you normally work each week?

_____ hours a week

31. How many of the hours that you work each week (Question 30) do you spend
outdoors?

_____ hours a week

32. Please complete the table below concerning your leisure-time activities.
- In column A., list up to five leisure-time activities at which you spend the most time in an average week.
 - In column B., describe the type of place where you participate in each of the activities you listed in column A.
 - In column C., enter the approximate amount of time you spend at each activity in an average week.

A. ACTIVITY	B. DESCRIPTION OF PLACE	C. TIME SPENT
		_____ hrs. _____ mins.
		_____ hrs. _____ mins.
		_____ hrs. _____ mins.
		_____ hrs. _____ mins.
		_____ hrs. _____ mins.

33. On shopping trips or any other leisure-time trips, do you normally park in an indoor parking garage?
CIRCLE ONE NUMBER.

01 Yes → CONTINUE
02 No → GO TO QUESTION 35.

34. In an average week, approximately how many total minutes do you spend in an indoor garage when you are on leisure-time trips?

_____ minutes

The last few questions are about you. Answers to these questions will be used only in the statistical interpretation of the data.

35. What is your sex?
CIRCLE ONE NUMBER.

01 Male
02 Female

36. How old were you on your last birthday?

Age: _____

37. What is the highest level of education you completed?
CIRCLE ONLY ONE NUMBER.

- 01 Less than 8th grade
- 02 Some high school but did not graduate
- 03 High school graduate or equivalent
- 04 Some college but not a 4-year degree
- 05 4-year college degree
- 06 Post graduate work
- 07 Graduate degree

THANK YOU FOR YOUR COOPERATION. THE INTERVIEWER WILL COLLECT THIS QUESTION-
NAIRE WHEN HE OR SHE RETURNS FOR THE MONITOR AND ACTIVITY DIARY.

FI USE ONLY

Type of Housing Structure:

A. Constructed of:

- ```

1 Frame
2 Masonry (brick, cinder block, stucco)
3 Combination

```

**B. Structure is:**

1. One story house/duplex
2. Two- or more-story house/duplex
3. Split level
4. Garden-type apartment/condominium
5. High rise apartment/condominium
6. Other (DESCRIBE)

FI No. \_\_\_\_\_

Date \_\_\_\_\_

**Comments**

EXAMPLE OF A TELEPHONE INTERVIEWER'S GUIDE

Source: "Study on Carbon Monoxide Exposure of Residents  
of Washington, D.C., and Denver, Colorado,"  
OMB Submission Packages Prepared for EPA by  
Research Triangle Institute,  
August 17, 1982

Household Screening Questionnaire

Hello. Is this (NUMBER)?

- ☐ Yes → CONTINUE  
☐ No

↓

What number have I reached? \_\_\_\_\_

THANK RESPONDENT AND TERMINATE.

My name is \_\_\_\_\_. I am calling from Research Triangle Institute in North Carolina. We are calling randomly selected telephone numbers in the Washington area in connection with a study we are conducting for the U.S. Environmental Protection Agency. Is this a residential phone number?

- ☐ Yes → CONTINUE  
☐ No

↓

THANK RESPONDENT AND TERMINATE.

I need to speak to a resident of the household who is 16 years old/or older. Are you a resident of the household?

- ☐ Yes → CONTINUE  
☐ No

↓

ASK TO SPEAK TO A RESIDENT WHO IS 16 OR OLDER. IF NO ONE IS AVAILABLE, DETERMINE BEST TIME TO CALL BACK.

CALL BACK TIME \_\_\_\_\_ A.M. OR P.M. \_\_\_\_\_ DAY

Are you 16 years or older?

- ☐ Yes → CONTINUE UNLESS RESPONDENT OBVIOUSLY CANNOT GIVE REQUIRED INFORMATION; IF RESPONDENT IS INCAPABLE:

- ☐ No

↓

ASK TO SPEAK TO ANOTHER RESIDENT WHO IS 16 OR OLDER. IF NO ONE IS AVAILABLE, DETERMINE BEST TIME TO CALL BACK.

CALL BACK TIME \_\_\_\_\_ A.M. OR P.M. \_\_\_\_\_ DAY

As I mentioned earlier, I am calling in connection with a study we are conducting for the Environmental Protection Agency. The purpose of this study is to determine to how much carbon monoxide people are exposed. In this part of the study, we are getting information from approximately 5,000 households to help us determine which people will be included in the final study. Your participation is voluntary and the data that you provide will be kept confidential. Any release of the data will be in summary form only. This part of the study will take only a few minutes of your time.

1. a. First, what is the first name of the person who is the head of the household?

ENTER BENEATH "01" IN COLUMN 1.

- b. What are the first names of the other people who live in the household?

ENTER BENEATH HOUSEHOLD MEMBER NUMBERS IN COLUMN 1. DETERMINE RESPONDENT AND INDICATE BY CIRCLING HOUSEHOLD MEMBER NUMBER IN COLUMN 1.

- c. I have listed (READ NAMES). Is there anyone else staying there now, such as friends, relatives, or roomers?

IF YES, ADD TO ROSTER.

- d. Do any of these people have a home somewhere else?

IF YES, DETERMINE WHICH PERSON(S) AND DELETE FROM ROSTER.

- e. Do any of these people plan to move from this residence in the next three months?

IF YES, DETERMINE WHICH PERSON(S) AND DELETE FROM ROSTER. IF ENTIRE HOUSEHOLD PLANS TO MOVE, THANK RESPONDENT AND TERMINATE.

Now, I need a little information about each person.

ASK QUESTIONS 3-7 FOR HEAD OF HOUSEHOLD, THEN ASK QUESTIONS 2-7 FOR ALL OTHER PERSONS ON ROSTER.

2. DO NOT ASK FOR HEAD OF HOUSEHOLD.  
How is (NAME) related to (HEAD OF HOUSEHOLD)?

ENTER ONE OF THE FOLLOWING CODES IN COLUMN 2.

|                          |    |
|--------------------------|----|
| Spouse . . . . .         | 02 |
| Child . . . . .          | 03 |
| Other relative . . . . . | 04 |
| Not related . . . . .    | 05 |

ALSO ENTER "M" OR "F" IN COLUMN 3; ASK Q. 3 ONLY IF SEX NOT OBVIOUS BY NAME OR DESCRIPTION.

3. Is (NAME) male or female?

4. How old was (NAME) on (his/her) last birthday?

ENTER AGE IN COLUMN 4.

5. Does anyone I have listed presently smoke, or use tobacco in any form?

IF "NO" - ENTER "N" IN EACH BOX IN COLUMN 5.

IF "YES" - PROBE AND ENTER "Y" OR "N" IN APPROPRIATE BOXES IN COLUMN 5.

6. Is (NAME) employed either full or part time?

IF "YES," PROBE FOR PRECISE OCCUPATION AND ENTER IN COLUMN 6.

IF "NO," DETERMINE WHAT PERSON DOES AND DESCRIBE IN COLUMN 6.

7. Does (NAME) travel to and from work, school, or any other place at least three times a week?

IF "NO," ENTER ZEROES IN COLUMN 7.

IF "YES," ASK: How much time does (he/she) spend traveling one way?  
ENTER IN COLUMN 7.

Now, a few final questions.

8. In your household, is there:

|                                     | <u>Yes</u> | <u>No</u> |
|-------------------------------------|------------|-----------|
| a. a gas furnace . . . . .          | 1 . . .    | 2         |
| b. a gas cooking stove . . . . .    | 1 . . .    | 2         |
| c. a gas hot water heater . . . . . | 1 . . .    | 2         |
| d. a gas clothes dryer . . . . .    | 1 . . .    | 2         |
| e. a gas or kerosene space heater . | 1 . . .    | 2         |
| f. a fire place which is used . . . | 1 . . .    | 2         |
| g. a wood stove . . . . .           | 1 . . .    | 2         |
| h. any other gas appliances . . . . | 1 . . .    | 2         |
| SPECIFY:                            |            |           |

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9. Does your household have an attached garage, or share a multi-family garage?

- ☐ Attached
- ☐ Multi-family
- ☐ Neither

10. In what city and county is your residence located?

City: \_\_\_\_\_

County: \_\_\_\_\_

Thank you very much for your help.

Based on the information that you and the rest of the 5,000 households in the metropolitan Washington area provide, a random sample of approximately 500 individuals will be selected to participate in the main study. In addition, 500 households will be recontacted for some extra information. We hope that you will be willing to help us if you are selected in either sub-sample. Have a nice (day/evening). Goodbye.

PROVIDE THE FOLLOWING INFORMATION ONLY IF ASKED.

People who are selected for the main study will be asked to use a small portable monitor to record their exposure to carbon monoxide during a typical 24-hour period. They will be paid a small amount for completing this part of the study.



| 1                        | 2                      | 3   | 4   | 5       | 6          | 7                       |
|--------------------------|------------------------|-----|-----|---------|------------|-------------------------|
| House-<br>hold<br>Member | Relation<br>to<br>Head | Sex | Age | Smoker? | Occupation | Time Spent<br>Commuting |
| 01                       | 01                     |     |     |         |            | __ hr. __ min.          |
| 02                       |                        |     |     |         |            | __ hr. __ min.          |
| 03                       |                        |     |     |         |            | __ hr. __ min.          |
| 04                       |                        |     |     |         |            | __ hr. __ min.          |
| 05                       |                        |     |     |         |            | __ hr. __ min.          |
| 06                       |                        |     |     |         |            | __ hr. __ min.          |
| 07                       |                        |     |     |         |            | __ hr. __ min.          |
| 08                       |                        |     |     |         |            | __ hr. __ min.          |
| 09                       |                        |     |     |         |            | __ hr. __ min.          |
| 10                       |                        |     |     |         |            | __ hr. __ min.          |

APPENDIX C  
Page 6 of 6

APPOINTMENT: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ AM  
Day of Week Month Date Time PM

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DIRECTIONS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

STANDARD PROCUREMENT LEADTIMES FOR CONTRACT AWARDS  
(EPA Notice 84-3, 7/30/84)

The Procurement and Contracts Management Division announces new standard procurement leadtimes for processing small purchase and contract awards. Leadtime is defined as the elapsed time between receipt of an acceptable Purchase Request/Order (EPA Form 1900-8) in the appropriate Procurement Branch and the date of the award. These leadtimes were established to reflect changes in award procedures as directed by the Federal Acquisition Regulation and are effective immediately. Some actions may require extraordinary processing steps; others may require delayed award dates to meet special needs of the program offices. In such cases, special leadtimes will be negotiated with the initiators of the actions. We continue to encourage program offices to submit advance contract actions, as unfunded "planning purpose procurements," as early as possible to ensure that the award will be made by the desired contract date.

STANDARD PROCUREMENT LEADTIME

| <u>Category+:</u>                                         | <u>Leadtime in</u>   |
|-----------------------------------------------------------|----------------------|
| <u>CONTRACTS:</u>                                         | <u>Calendar Days</u> |
| <u>A. New Competitive</u>                                 |                      |
| Competitive - Research and Development under \$500K ..... | 185                  |
| Competitive - non R&D under 500K .....                    | 170                  |
| Competitive - R&D \$500K or more .....                    | 240                  |
| Competitive - non R&D \$500K or more ....                 | 225                  |
| <u>B. New Sole Source</u>                                 |                      |
| New Sole Source - under \$500K .....                      | 120                  |
| New Sole Source - \$500K or more .....                    | 171                  |
| <u>SMALL PURCHASES:</u>                                   |                      |
| <u>A. Competitive Order</u>                               |                      |
| Oral \$1,000 to \$10,000 .....                            | 5                    |
| Written \$1,000 to \$10,000 .....                         | 7*                   |
| Written \$10,001 to \$25,000 - non R&D .....              | 70                   |
| Written \$10,001 to \$25,000 - R&D .....                  | 80                   |
| <u>B. Sole Source Order</u>                               |                      |
| Order under \$10,000 .....                                | 4                    |
| Written - more than \$10,000 .....                        | 5*                   |
| Written - \$10,000 to \$25,000 .....                      | 60                   |

\* Add 12 days if written quote obtained.

+ Federal Supply Schedule (FSS) orders will be included in these categories based on the same criteria as other orders.

PROCUREMENT REQUEST RATIONALE CHECKLIST  
(to be submitted with EPA Forms 1900-8 and 1900-8A)

Item 1: The title of this procurement is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

Item 2: This procurement request package contains the following documents:  
(Check all applicable boxes and attach documents as appropriate.)

| <u>See Attachment #</u> | <u>Check</u>             | <u>Description</u>                                                      |
|-------------------------|--------------------------|-------------------------------------------------------------------------|
| N/A                     | <input type="checkbox"/> | EPA Forms 1900-8                                                        |
| —                       | <input type="checkbox"/> | Procurement Abstract*                                                   |
| —                       | <input type="checkbox"/> | Statement or Scope of Work*                                             |
| —                       | <input type="checkbox"/> | Concise Technical Proposal Instructions*                                |
| —                       | <input type="checkbox"/> | Competitive Technical Evaluation Criteria*                              |
| —                       | <input type="checkbox"/> | Justification for Noncompetitive Procurement (JNCP)*                    |
| —                       | <input type="checkbox"/> | Justification for Management Consulting Services*                       |
| —                       | <input type="checkbox"/> | Justification of Need (Government-Furnished Property (GFP) /Equipment)* |
| —                       | <input type="checkbox"/> | Quality Assurance (QA) Review Form                                      |
| —                       | <input type="checkbox"/> | Recommended Sources List                                                |
| —                       | <input type="checkbox"/> | Reports Description                                                     |
| —                       | <input type="checkbox"/> | Government-Furnished Property Description                               |

\* The PROJECT OFFICERS' HANDBOOK provides guidance for preparing these documents. Also, see Item 11.

Item 3: This procurement ☐ requires ☐ does not require management consulting services. (If management consulting services are required, attach a justification as prescribed in EPA Acquisition Regulation 1537.205.)

Item 4: This procurement ☐ involves ☐ does not involve legal analysis. I ☐ have ☐ have not discussed this procurement with the Office of Legal and Enforcement Counsel (OLEC) which ☐ concurs ☐ does not concur with proceeding with this procurement.

PROCUREMENT REQUEST RATIONALE CHECKLIST

Item 5: I ☐ anticipate or have knowledge of ☐ do not anticipate or have any knowledge of organizational conflict of interests issues related to this procurement. (If affirmative, describe conflict in an attachment.)

Item 6: Listed below are special EPA employee(s) who are or will be participating in EPA's processing or managing of this procurement, together with a list of their non-Government employers. Check here if none ☐.

EPA Special EmployeesNon-Government Employer


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Item 7: This procurement ☐ is ☐ is not based on an Unsolicited Proposal.

Item 8: To the best of my knowledge the work results of this proposed procurement ☐ are ☐ are not available from any other source. (If the results are available from another source, describe in an attachment.) The Project Officer ☐ has ☐ has not reviewed the Office of Pesticides and Toxic Substance extramural activity report. The PO ☐ has ☐ has not consulted the EPA Headquarters Library for relevant reports by previous Contractors.

Item 9: The proposed Project Officer is \_\_\_\_\_.  
He/she ☐ has ☐ has not been certified as an EPA Project Officer.

Item 10: I ☐ recommend ☐ do not recommend prospective sources for this procurement. (If sources are recommended, list in an attachment.)

Item 11: This procurement anticipates ☐ a new contract award ☐ an additional work modification to existing contract no. \_\_\_\_\_. It also anticipates that it will be processed as a ☐ competitive procurement ☐ noncompetitive procurement. (If noncompetitive procurement is recommended, attach appropriate justification as described in Part 1515 of the EPA Acquisition Regulation.)

Item 12: This proposed procurement is appropriate for ☐ total small business/labor surplus area (SB/LSA) set-aside; or ☐ partial SB/LSA set-aside; ☐ partial SB set-aside; ☐ 8(a) set-aside; ☐ LSA set-aside; or ☐ none of the above (check only one). (Consult the Office of Small and Disadvantaged Business Utilization for advice.)

Item 13a: The estimated period of performance is \_\_\_\_\_ months after the effective date of the contract ☐ inclusive ☐ exclusive of submission of any final report which may be required.



Item 13b: The schedule of deliverable items (excluding reports) is as follows. Check here if no deliverable items are required ☒.

| <u>Item No.</u> | <u>Description</u> | <u>Quantity</u> | <u>Delivery Date</u> |
|-----------------|--------------------|-----------------|----------------------|
| _____           | _____              | _____           | _____                |
| _____           | _____              | _____           | _____                |
| _____           | _____              | _____           | _____                |
| _____           | _____              | _____           | _____                |

Item 14: This procurement anticipates that the following options will be needed. Check here if no options are anticipated /.

| <u>Description of Option</u><br>(Description may be indicated in a separate attachment) | <u>Term of Option</u> |
|-----------------------------------------------------------------------------------------|-----------------------|
|                                                                                         |                       |
|                                                                                         |                       |
|                                                                                         |                       |
|                                                                                         |                       |

**Item 15:** The following reports are required (describe in an attachment).  
Check here if no reports are required ☒. For each separate report  
required, describe the following:

- (a) Type of report (e.g., draft, final, interim, special, etc.)
- (b) Descriptive title (e.g., monthly progress report)
- (c) Minimum content requirements
- (d) Number of copies required
- (e) Distribution (with complete addresses of all recipients)
- (f) Delivery schedule
- (g) Number of days the Government will have to review, comment, approve (disapprove) and return (as appropriate)

Where specific report formats, containing the information above, are used repetitively, "standard" formats are established or may be established with the servicing CO. Maximum use of such standard formats is encouraged. Examples include monthly or other periodic progress reports, financial and final reports.

Item 16: Peer review of Contractor-generated documents ☐ will be ☐ will not be required.

Item 17: Government property, data, or services    will be furnished    will not be furnished under this procurement. (If furnished, describe in an attachment including quantity and date available.)

Figure 2-1  
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PROCUREMENT REQUEST RATIONALE CHECKLIST

Item 18: Budget. (An attachment may be used.)

- (a) The total estimated budget for the basic effort and all options is \$\_\_\_\_\_.
- (b) The estimated funding for the current fiscal year is \$\_\_\_\_\_.
- (c) The estimated total cost of Other Direct Costs is \$\_\_\_\_\_.  
(If possible, indicate estimate of significant subitems such as travel, computer time, consultants, equipment and material.)
- (d) For level of effort actions and other actions where hours, rather than an end product, are to be purchased, indicate for the basic and all option periods the number of hours required, by category, with definitions for each category.

Item 19: This procurement ☐ is ☐ is not subject to the requirements of OMB Circular A-76. (If A-76 applies, required documentation must be provided with the PR.)

Item 20: This procurement ☐ requires ☐ does not require priority processing (a brief priority justification may be attached).

(To be completed by procurement office:)

☐ Approved      ☐ Disapproved

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chief, Contracting Office

Item 21: This procurement ☐ will ☐ will not involve the testing of human subjects in accordance with EPA Order 1000.17.

Item 22: This procurement ☐ does ☐ does not include acquisition of membership in an association. (If membership in an association is included, attach a certification indicating that the primary purpose of membership is to obtain direct benefits for EPA necessary to the accomplishment of its functions or activities.)

Item 23: This procurement ☐ is ☐ is not for leasing of motor vehicles. (If affirmative, attach certification per FAR 8.1102.)

Item 24: This procurement ☐ is ☐ is not to be funded from more than one appropriation. (If affirmative, see Chapter 9 of this manual.)

PROCUREMENT REQUEST APPROVALS

- A. Designated Office Approvals - Note that this matrix in Part A does not restate any approvals from Part B. Offices designated in Part A should be consulted prior to submission of requests for approval since authority may have been redelegated. The Agency objective is to limit Procurement Request approvals strictly to those that are clearly required by proper delegations and official policies.

| Item No. | Item Description                                                                                                            | Required Local Approvals                                                                                                                                                                                                         | Required Headquarters Approvals    |
|----------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 1        | All purchases, regardless of value, for equipment, supplies or services. (Includes all items listed in the rest of Part A.) | - Program Office Approvals (POA)<br>- Facilities Support Services Division (FSSD) or Equivalent Field Office (EFO) to confirm compliance with property regulations and to screen for excess property. (Delegations Manual # 1-4) | None                               |
| 2        | Printing; duplication; composition                                                                                          | Offices designated in Delegation # 1-5 in Delegations Manual.                                                                                                                                                                    | None                               |
| 3        | - Real property or any interest therein<br>- Advertisements for acquisition of real property                                | None                                                                                                                                                                                                                             | FSSD<br>(Delegations Manual # 1-4) |
| 4        | Commercial U-drive credit cards                                                                                             | None                                                                                                                                                                                                                             | FSSD<br>(Delegations Manual # 1-4) |
| 5        | Facsimile equipment                                                                                                         | None                                                                                                                                                                                                                             | FSSD<br>(Delegations Manual # 1-4) |

Figure 2-2  
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PROCUREMENT REQUEST APPROVALS

| Item No. | Item Description                                                                                                                                                                                 | Required Local Approvals                                                                                              | Required Headquarters Approvals                                           |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 6        | Communications equipment utilizing the radio frequency spectrum                                                                                                                                  | None                                                                                                                  | FSSD<br>(Delegations Manual # 1-4)                                        |
| 7        | Watercraft over 25 feet or \$15,000 or aircraft of any value                                                                                                                                     | None                                                                                                                  | FSSD<br>(Delegations Manual # 1-4)                                        |
| 8        | Purchase or lease/hire for 60 or more consecutive days of passenger vehicles and light duty trucks                                                                                               | None                                                                                                                  | FSSD<br>(Delegations Manual # 1-4)                                        |
| 9        | Purchase or rental of copying machines and printing equipment                                                                                                                                    | None                                                                                                                  | FSSD<br>(Delegations Manual # 1-5)                                        |
| 10       | Repair and improvement construction                                                                                                                                                              | FSSD or EFO<br>(See Delegations Manual # 1-4)                                                                         | FSSD<br>(For use of Building and Facilities funds)                        |
| 11       | Equipment, services for creation, organization, maintenance and disposition of Agency records and files including micrographic services and systems                                              | Limited offices as designated in the Delegations Manual (see Delegation # 1-1)<br>See also Records Management Manual. | None                                                                      |
| 12       | ADP equipment, software maintenance and services, including those related to computer-related micrographic systems, word processing, time-sharing, feasibility studies and requirements analyses | None                                                                                                                  | Office of Information Resources Management<br>(Delegations Manual # 1-10) |

Figure 2-2  
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PROCUREMENT REQUEST APPROVALS

| Item No. | Item Description                                                                                                          | Required Local Approvals                          | Required Headquarters Approvals                                                              |
|----------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------|
| 13       | Paid advertising for recruitment of personnel in newspapers and trade journals of national or inter-regional circulation  | Local personnel office (Delegations Manual # 1-2) | None                                                                                         |
| 14       | Collecting identical information or statistical data from ten or more persons                                             | None                                              | Assistant Administrator for Policy, Planning and Evaluation. (See Delegations Manual # 1-22) |
| 15       | Protective services and equipment including guard protection security alarms, safes, and monitoring and detection devices | None                                              | FSSD<br>(See Delegations Manual # 1-6)                                                       |

Figure 2-2  
(Page 3 of 4)



PROCUREMENT REQUEST APPROVALS**B. Management Approvals**

The following approvals apply to all procurement requests (PRs). (Incremental fundings are excluded.) These approvals are in addition to those listed in A above.

| <u>Item</u>                                                                 | <u>Approval</u>                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Procurement Requests for management consulting services:                 |                                                                                                                                                                                                                            |
| (a) Small purchases                                                         | Program official at least one organizational level above initiating office and, when award is to be made during the fourth fiscal quarter, to program official at least two organizational levels above initiating office. |
| (b) Other than small purchases                                              | Program official not below level of Associate, Assistant or Regional Administrator, Inspector General, or General Counsel.                                                                                                 |
| 2. Requirements not listed above which exceed the small purchase threshold. | Program Official designated by the Associate, Assistant or Regional Administrator, Inspector General, or General Counsel.                                                                                                  |

Figure 2-2  
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